GREEN INDUSTRY NEWS

Major staff changes shock turf world

Three major turf figures changed positions in November, a topic which became the talk of many regional turf shows.

The biggest change was the resignation of Golf Course Superintendents Association of America Executive Director Conrad Scheetz. GCSAA has made no official announcement of the situation. Education Director Palmer Maples is acting executive director until the Executive Board makes a decision on the replacement of Scheetz.

The change means two major GCSAA positions are unfilled, the other being the Director of Communications.

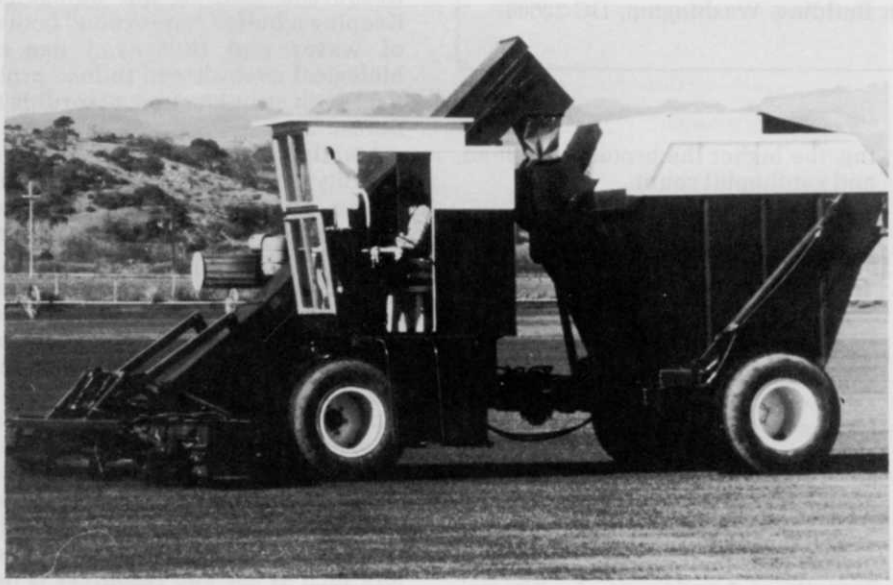
The University of Illinois suffered two blows to its turf program by the departure of Dr. Al Turgeon to Texas A & M and Dr. John Street to Ohio State University.

Dr. Turgeon will be promoted to a full professor and will direct the Texas A & M Research and Extension Center in Dallas.

Dr. Street will be promoted to associate professor of turfgrass at Ohio State University's Columbus campus.

The moves take the University of Illinois from a leading position in turf research to a questionable one. Ohio State University recently lost Dr. David Martin to Chem Lawn Corp.

New turf field lab at Michigan State University is now under construction after this ground breaking ceremony in October. The new Hancock Turf Field Lab will centralize all turf research plots at MSU while providing office space. Taking part in the ground breaking are (left to right): Dr. Paul Rieke, Dr. Ken Payne, Dr. Dale Harpstead, Dr. John Kaufmann, and Dr. Joe Vargas.



Custom-designed sod mower is used by Warren's Suisun City, CA, turf farm to process bluegrass clippings for animal feed.

TURF

Sod grower makes feed of dehydrated clippings

Warren's Turf Nursery, Inc. has discovered dehydrated grass clippings to be a valuable agricultural product used for poultry, cattle, and horse feed and plans to expand production.

After experiments with the USDA and the University of California a few years ago, Warren constructed a pilot plant for dehydrating grass clippings. The clippings are converted into dehydrated pellets which sell for $150 to $200 a ton. One acre of grass yields four to six tons of dried pelletized clippings a year.

Warren enlarged the pilot plant in California and built a second plant at its Wisconsin nursery. It now has plans to construct dehydration plants at Plymouth, OH; Anderson, IN; Middletown, NJ; and near Chicago.

The actual value of dehydrated clippings is about twice the value of dehydrated alfalfa because of the higher content of protein, caratene, and xanthophil. Xanthophil is of

Landscape Contractor News

Conference to discuss energy saving

"The Energy Efficient Landscape" is the theme of the 1980 Environmental Horticulture Conference to be held in Goodman's Hall, Jack London Square, Oakland, CA, on Feb. 13.

The conference should help landscape architects, contractors, nurserymen, arborists, professional gardeners, and park and recreation managers save energy through successful planning and practices of landscape maintenance. Topics include use of waste water in landscapes, energy efficient plants from Australia, and energy wastes.

The University of California Cooperative Extension and 13 societies and associations connected with landscape horticulture will sponsor the event. The fee for the 1980 conference is $10 for preregistration and $13 at the door. Make checks payable to Environmental Horticulture Conference and mail to: 2033 White Oak Way, San Carlos, CA 94070.

Clinic will stress high yield for 80's

The 1980 Landscape/Garden Center Management Clinic, entitled "High Yield Management for the '80's," will be held Feb. 10-13 at the Galt House, Louisville. KY.

The National Landscape Association and the Garden Centers of America will sponsor the event. The program, as always, is geared to top and middle management of landscape and retail nursery firms.

One substantive change in this year's approach is having the first days of the clinic devoted to garden center topics. The middle days will deal with topics of mutual interest and the end of the clinic will deal with landscape subjects. Traditionally, landscape subjects have been first.

"The change this year is due to the Valentine holiday and the fact that many garden centers have floral operations," says NLA President Frank Tomlinson. "Having retail topics covered first allows those managers to return in time for the increased business period surrounding that holiday."

Among the subjects to be covered during the landscape portion are: "Planning and Managing Successful Landscape Maintenance Services," "Soaring Through the 80's," "The Future in Design/Plant-/Build," and "Financial Management." Advance registration for the total program is $70 and may be sent to: Landscape/Garden Center Management Clinic, 230 Southern Building, Washington, DC 20005. Deadline is February 1, 1980.

special value to the poultry industry because it is the chemical or coloring agent that gives the skin of dressed poultry a yellowish color rather than a whitish tinge.

Warren learned that the value of the finished product is greater when the clippings are not allowed to touch the ground and are caught in large containers as they are mowed. Its California nursery developed a mowing machine that could cut a swath of grass 21 feet wide and convey the clippings into a large hopper from which the clippings were taken every few minutes and rushed to the dehydrator. The sooner the clippings were dehydrated after mowing, the higher the protein, caratene, and xanthophil count.

LANDSCAPE

ASLA annual meeting sets record attendance

The largest gathering of landscape architects in the history of the profession assembled in New Orleans in November to discuss and debate the impact money, law, and politics has on this design profession.

More than 1,800 landscape architects attended the American Society of Landscape Architects' 79th annual meeting to witness a number of educational sessions and a large educational exhibit.

The society installed Robert L. Woerner, a Spokane, WA, landscape architect, as its president for a one-year term.

Calvin T. Bishop of Houston, TX, and Darwina L. Neal of Washington, DC, were installed as new vice presidents, and Joseph Y. Yamada of San Diego, CA, was installed as treasurer of the society. Neal and Yamada will each serve two-year terms.

PARKS

Low maintenance trees suggested for parks

Low maintenance trees, pond management, personnel appraisal, and integrated pest management were among the topics discussed at the Ninth National Institute on Park and Grounds Management in Nashville, Oct. 28-Nov. 2.

American Garden's William Collins said trees should be selected for natural shape, climatic zone, hardiness and resistance to insects, disease and other stresses. "What we need to do," Collins said, "is to improve the rootzone by proper drainage and planting to permit the tree to express its inherited low maintenance characterisitics."

Reducing runoff of fertilizers and clippings into lakes and proper aeration should be combined into a continuous program of lake management, Stephen Belzner of Rodale Resources said to the delegates. Keeping a buffer zone around bodies of water and increased use of biological controls can reduce problems with atrophication, according to Belzner.

Meeting objectives and not personality should be the main factor in judging an employee's performance, Steve Davis, director of Clay County park department in Smithville, MO, told fellow park managers. A regular performance appraisal can boost morale and lets the worker know exactly where he stands, Davis said. Objectives should be set in measurable, definable terms at least once every quarter.

William and Helga Olkowski gave a step by step approach to integrated pest management. A look at problems, weather conditions, plus factors such as use and resources is the first step. Secondly, the manager must decide on an acceptable injury

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If a good transportation/hauling vehicle is all you need, though, look at the Cushman Runabouts. There's an 18-hp two-seater, and a fuel-stingy 12-hp one-seater model. Both Runabouts are economical to own. And like any Cushman vehicle, they're built tough.

There's nothing like a Turf-Truckster or Runabout to get more work done, in less time and with less manpower. For a closer look at what goes into, or behind, a Cushman vehicle, return this coupon today. 80-CUT-2

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GOVERNMENT UPDATE

Federal agencies question Surflan

Officials of the Environmental Protection Agency, the Occupational Safety and Health Administration, and the National Institute for Occupational Safety and Health have launched an investigation into the herbicide "oryzalin", which they think may be responsible for heart-related birth defects among children fathered by workers who manufactured the substance.

Oryzalin, approved in 1975, is a liquid herbicide used to control weeds and brush in soybeans and cotton, certain fruits and nuts, and woody ornamental plants. The Elanco Products Div. of Eli Lilly & Co. of Indianapolis, IN, holds the registration for the compound under the brand name "Surflan."

EPA Assistant Administrator Steven D. Jellinek stressed that his office has no record of the herbicide causing health problems among users. The Agency has reviewed studies conducted by Eli Lilly & Co. to support registration of the compound, as required by the Federal pesticide law.

Sharp drop in nonwhite farm workers

Between 1965-67 and 1975-77, the number of hired farm workers in the US declined 9.3 percent — from just under 3 million to slightly more than 2.7 million, according to agricultural extension specialists at North Carolina State University.

Although the number of white workers actually increased slightly, the number of blacks and others dropped from 822,000 to 440,000. Figures show the average age of farm workers declined, resulting primarily from more workers 18 to 24 years old and less workers 45 years and older.

Survey identifies urban tree problems

Construction damage, Dutch elm disease, pine bark beetles, scale insects, and oak decline kill more city trees than anything else, according to a survey of 17 southern states. The University of Georgia's Dept. of Entomology polled more than 1,700 practicing urban foresters, university professors, arborists, and others. The survey asked them to identify the most difficult problems in their locations to determine areas where research dollars may best be spent.

level. What do users expect and what degree of damage can a plant withstand? Finally, all options to control must be considered, including cultural controls, natural controls, and breeding site elimination.

GOLF

Recertification seminars precede GCSAA show

Seven seminars on subjects ranging from pesticides to photography have been scheduled just before the opening of the 51st International Turfgrass Conference and Show in St. Louis, Feb. 17-22. The seminars will be taught by nationally recognized experts and will be worth points toward certification renewal.

Seminar subjects include: landscape design theory, personnel management, irrigation equipment operation, pesticide use for insect control, turf nutrition, photography, and cardiopulmonary resuscitation. Each seminar lasts two days and is followed by an optional examination for points.

The Golf Course Superintendents Association of America also announced that Toro Chairman David McLaughlin will present the keynote address to start the show off. McLaughlin will speak on the subject, "Are we savers or spenders?"

TREES

Christmas tree crops up in North Carolina

Tar Heel Christmas tree farmers are reporting a 40 percent increase in their harvest for this year over the last two years. Farmers have planted enough trees to triple production by 1983. Extension Forestry Specialist William Huxster of North Carolina State University said, "We are now cutting about four percent of the Christmas trees sold in the United States each year. Our goal is 15 percent of the national market."

About 60 percent of the Fraser fir, white pine, Virginia pine, and Eastern red cedar grown in the state is exported. Conservatively estimated, the 1979 crop will bring growers roughly $10 million.

How Roundup® helped Jim Siegfried renovate this fairway in days, without closing it for one minute.

Take a good look at this good-looking fairway.

Last fall, Jim Siegfried found a way to clean it up, without tearing it up—at the height of his club's busy season. With Roundup® herbicide by Monsanto.

Jim is the Greens Superintendent at Losantiville Country Club, Cincinnati, where bermudagrass had become a serious problem on the 18th fairway. To control it, Jim applied Roundup once—while the weeds were still actively growing—right at the start of the Labor Day weekend.

"That's really 'prime time' here," Jim told us. "But after we applied Roundup, we kept the fairway in play the whole weekend, and after. The members played right over it, with no problem."

Since Roundup has no residual soil activity, and won't wash or leach out of treated areas to injure desirable plants, Jim simply took normal precautions against spray drift—and didn't worry about damaging desirable vegetation along the fairway.

Even better, he was able to reseed right into the dying bermudagrass only 7 days after applying Roundup—without loss of playing time or inconvenience to the membership.

Reinfestation won't be a big problem for Jim, either. He knows that Roundup destroyed the rhizomes of the treated weeds, helping prevent their regrowth.

Jim thinks he'll use Roundup again this year—and apparently some club members hope so, too. "As soon as they saw how good this fairway looks, some of the members started asking when I'm going to do the same for #10, where we have some more bermuda. I'll probably tackle that with Roundup this fall."

If controlling many tough emerged weeds and grasses is a problem for you, see your local Monsanto representative or chemical dealer soon for your supply of Roundup.

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Ask your Jacobsen distributor for a Turfcat demonstration. And have him explain about the many fine features that customers want.

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IMPLEMENTING A STREET TREE INVENTORY AND PLANNING SYSTEM

By Leonard E. Phillips, Jr., Park Superintendent, Wellesley, MA

The planting of street trees has become very scientific and highly specialized. Because so many things must be taken into consideration when planting trees along our streets, it is most important to select the right trees and place them properly for permanent growth and lasting beauty.

This article in intended to summarize two urban forestry studies. The first is the complete inventory and analysis of the existing street trees within a community. This is often followed by the computerization of tree data for ease with record maintenance and information retrieval.

The second study pertains to the development of a comprehensive Master Street Plan. This plan documents and summarizes the inventory and provides the analysis needed to permit the development of a comprehensive master plan.

Why should all of this planning be undertaken for the sake of a few trees? Community trees are like any other community asset, they have value and they must be maintained to protect that value.

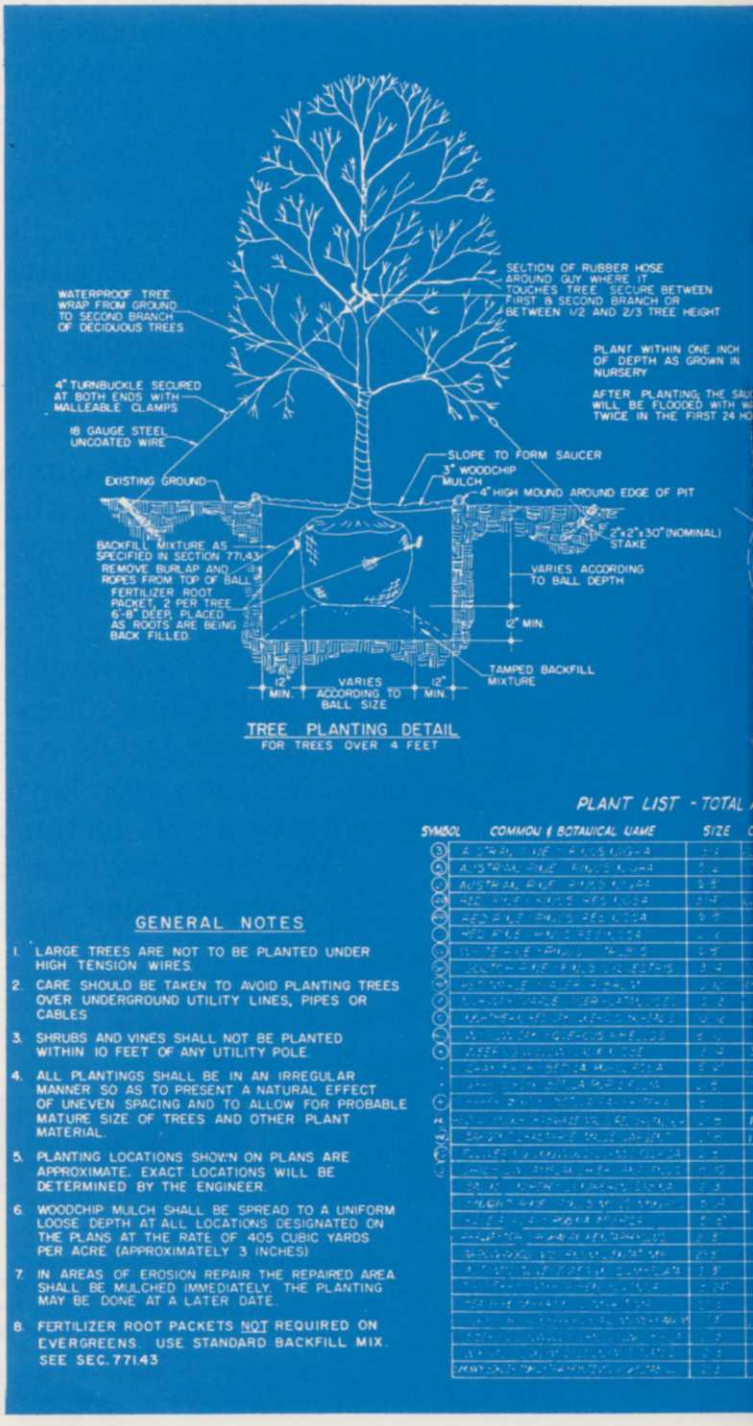
Furthermore, trees provide valuable contributions to man and his environment. For example, 78 trees are needed to absorb carbon dioxide and produce the oxygen for one person; 20 trees are required to offset the pollution of a car driving 60 miles per day; trees provide a natural summer air conditioner; and trees provide food and shelter for wildlife. Trees can be used to screen sun, sound, wind and unsightly views; to provide privacy; and to add beauty to our environment with graceful shape, colorful foliage, fragrant flowers and unique fruit. Most communities are proud of their trees.

Street tree inventory

Any street tree inventory should be undertaken with the following objectives:

1. To count all street trees growing within community boundaries.
2. To count all trees by species.
3. To record needs and problems observed, such as fertilizing, disease, shade canopy, insect damage, conflicts with utilities, and other evaluative data.
4. To employ the information gathered in programming tree care activities and to point out needs for additional plantings or alterations to the streetscape.

Once this data is obtained, it should be organized to serve as a useful and available source of information for an ongoing tree care program. The street trees could be mapped to depict an overall image of the tree canopy throughout the community.

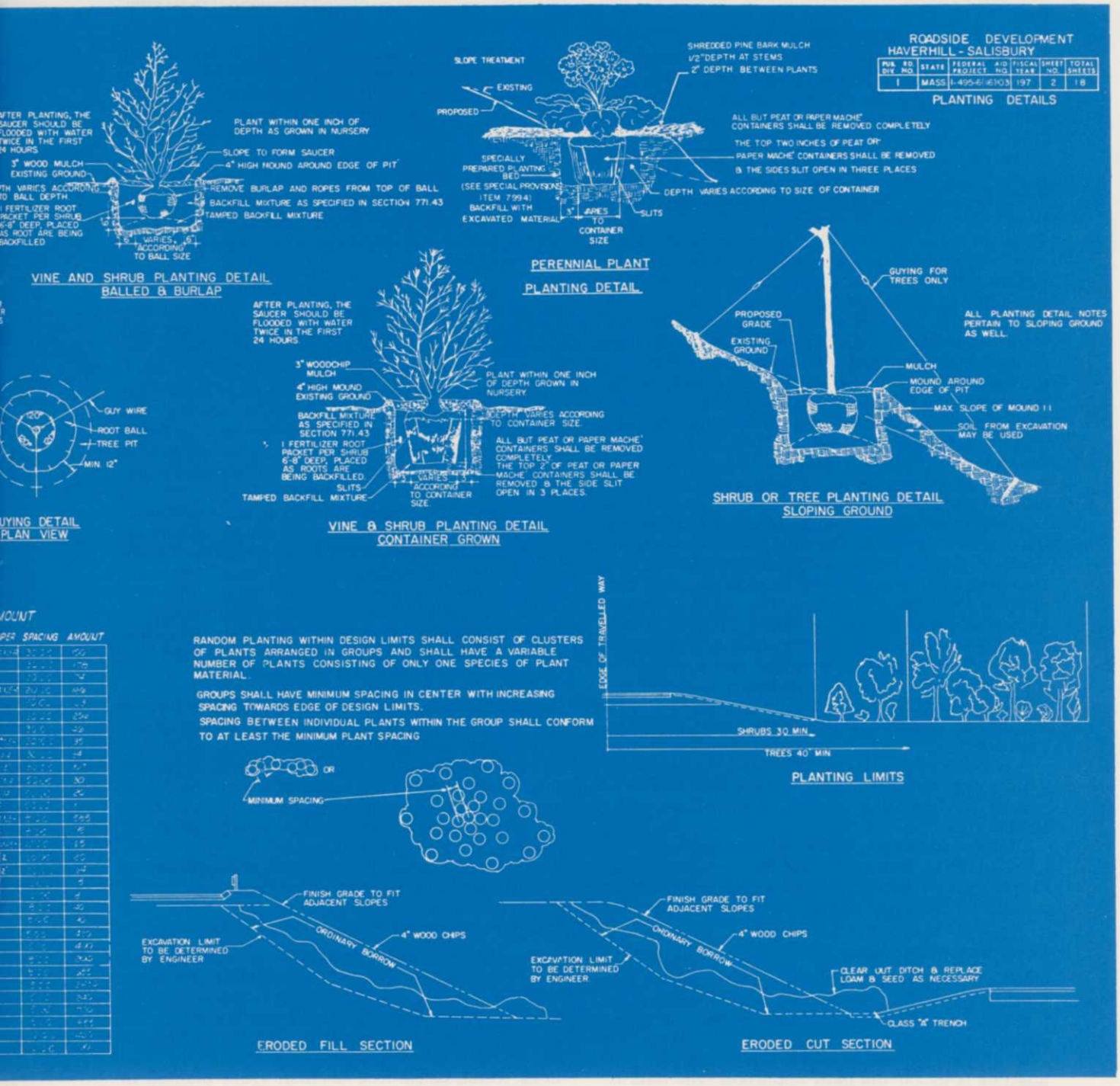


Leonard E. Phillips, Jr., is superintendent of the Wellesley, MA, Park and Tree Division. His responsibilities include the adminsitration of 31 employees, care of 700 acres of park land, and maintenance and planning for more than 40,000 street trees. He is a registered landscape architect in nine states. He has a degree in horticulture and landscape architecture from the University of Illinois and an associate degree in applied science from the State University of New York.

The first step involved in the planning process should be the preparation of lists of the most desirable selections for future planting along the community's streets. The plant materials selected must be hardy and sufficiently tolerant to survive harsh roadside conditions . It is advisable to use trees that are "native cultivars". These are defined as improved strains of the native varieties of trees.

The plant list selection process is quite involved. First, extensive lists of native plant material are prepared. These lists are modified by removing those materials which experience has indicated will do poorly in roadside conditions, have high maintenance costs, are disease prone, and have fruiting hazards. Then, the lists are supplemented with cultivars which would be satisfactory substitutions for the native species in terms of disease resistance and improved visual qualities. Finally, the lists are supplemented with introductions which have become established and tolerant of growing conditions in the community. These introductions are included only to provide a well-rounded selection and sufficient number of species for proper diversification.

In order to further refine the selection process, it is advisable to compare the selection with the rec-



ommendations of other authorities. These authorities can be from nurseries, local universities or the extension service. Books should be checked for ideas too.

Upon completion of a list of street trees, a determination has to be made with regard to the environmental preferences of each tree species. The list of selected trees should be made according to soil preferences: such as trees which tolerate moist soil, dry soil or a wide range of soils; salt tolerance; hardiness; excessive sun; shade tolerance; wind abuse; and finally urban site tolerance in terms of soil compaction, air pollution, and mechanical injury.

This data should be computerized. The purposes for establishing a computerized tree inventory are:

1. To make inventory data more readily available, thereby assisting the tree department staff in intelligently answering complaints and questions from the public.
2. To help in species selection for new planting plans.
3. To improve scheduling of maintenance operations and the overall tree care program.
4. To increase efficiency of administrative duties such as budgeting and preparation of annual reports. The type of data included should be listed according to street address, map number and tree number; the location of each tree and distance from the curb; tree species; house set back; tree caliper, condition and monetary value. The program should be designed to include a history of the tree regarding trimming, spraying, removal or annual growth. From the stored information the program should produce data on street and number, tree condition, distance from the curb, tree caliper, tree value, tree species, work needed, reference number and combinations of these.

Several preprogrammed systems for automating the storage, retrieval and analysis of trees have been developed for municipalities not having the resources or in-house capabilities to develop and operate their own programs. One of the better-known of these systems is called TRESYSTM. It features an efficient inventory process, routine updating and storage of all practical data needed for the care of every tree. The system was developed by Professor H.D. Gerhold and C.J. Sacksteden of the Forest Resources Laboratory in University Park, PA.

Another street tree inventory and management system has been developed by Asplundh Environmental Services, Blair Mill Rd., Willow Grove, PA, 19090.

Other companies offer similar services to municipalities. However, all of the basic programs, inventory and other services vary somewhat in sophistication as well as cost to the community.

Street tree master plans

Upon the completion of the inventory (unless the inventory is to be considered a part of the master plan), the second study, a master street tree plan, should be undertaken.

Of all the environmental considerations, the soil analysis is by far the most important. The data is compiled to correspond to the environmental preferences of the trees. A soils map should be prepared to show only the minimum number of categories of soils, examples of which are as follows:

Moist Soils: These areas contain muck, peat, silt and sandy soils with a high water table most of the year. These soils may be drained or covered with fill in order to permit development, but the moist, heavy soil types are still present at a depth sufficient to require trees which prefer moist soil. These areas are located in the low lying areas along streams and ponds scattered throughout most communities.

Dry Soils: These well-drained areas contain sands or mixed sand and gravel. These soils and water tables are sufficiently deep to provide a dry and well-drained site preferred by many trees. These soils are in the moderate elevations, higher than the wetlands but lower than the stony, irregular topography of the highest elevations.

Mixed Soils: These areas contain poorly sorted soil mixtures of rock, gravel, sand, silt, and clay. The depth of this material varies from 0 to 20 ft. over the bedrock.

Alluvial Soils: These areas contain the same poorly sorted soils as the mixed soil areas but are located in the original flood plains of rivers and streams. The trees to be planted in these areas may be subject to occasional flooding.

Another environmental consideration pertains to an evaluation of the existing forested areas of the community and, if possible, the native vegetation analysis of the community. The important features to be studied are the species and, if local information is available, the tree height .

A study of land uses must be made in combination with an analysis of the existing street tree inventory in order to establish the aesthetic character of the neighborhoods and areas of the community. The land use map should be simplified to show generalized land uses along with a breakdown of neighborhoods. The combined effort illustrates categories which are shown on a land use map and typically defined as follows:

1. Commercial/industrial areas: these heavily developed areas are for the most part devoid of any significant, healthy street trees.
2. Institutional/open space areas: these areas are the large protected open spaces where the forest succession process will occur naturally and where the existing forest trees often exceed 40 ft. in height.
3. Residential neighborhoods: each neighborhood is defined according to location, lot size and major tree associations.
4. Other areas as they apply to local community.

There are several miscellaneous factors which must be considered prior to the planting of trees in order to insure proper growth and minimum damage. These environmental hazards are:

1. Severe salt accumulation: Winter salting on streets results in accumulations at specific locations which cause tree decline. Trees planted in