

outside rights-of-way with Amirtol-T. Later in the summer, conifers, cattails, and morning-glories are spot sprayed.

Lane County has a policy that requires any public utility cutting brush on a county right-of-way to obtain a permit which requires it to report that cutting to the county. When these reports are turned in to the Weed and Brush Department for the county, men are sent out to spray the stumps in order to halt any resulting new growth. For spraying stumps, the county uses a mixture of one gallon 2,4-D and 2,4,5-T esters to each 24 gallons of diesel.

### Personal Contact Helpful

When Lane County first began spraying in 1958, there were many complaints from people who were afraid that either they or their livestock might be harmed by the chemicals. County officials launched into a public relations effort to combat public fear of the chemicals. The public relations program presently used by the county is basically the same as that begun in 1958. Printed literature designed to explain the safety of the chemicals used is carried in the trucks with the spraying crews. Thus, when someone questions the men who are spraying, they

have literature to hand out. Supplementing this literature program, of course, is the personal contact that people have with the men who do the spraying. Before these men are sent out to spray roadside brush, they are trained in the techniques of spraying, the value and purposes of the program, and the public relations and spraying policies of the Public Works Department so that they are able to answer many of the questions people might have. In addition, the Public Works Office receives numerous phone calls, thus enabling the office personnel to explain about the chemicals to people who have questions and complaints. The third area of the public relations program consists of an educational program aimed at groups that are interested in or affected by the use of sprays in their area. County officials are encouraged by requests to speak at Grange meetings, County Farm Bureau meetings, and Garden Club meetings. Partly as a part of the public relations program, and partly for their own records, the county has made it a point to take before and after pictures with colored slides.

Not all of the complaints were settled by public relations techniques, however. In addition to calls from people concerned

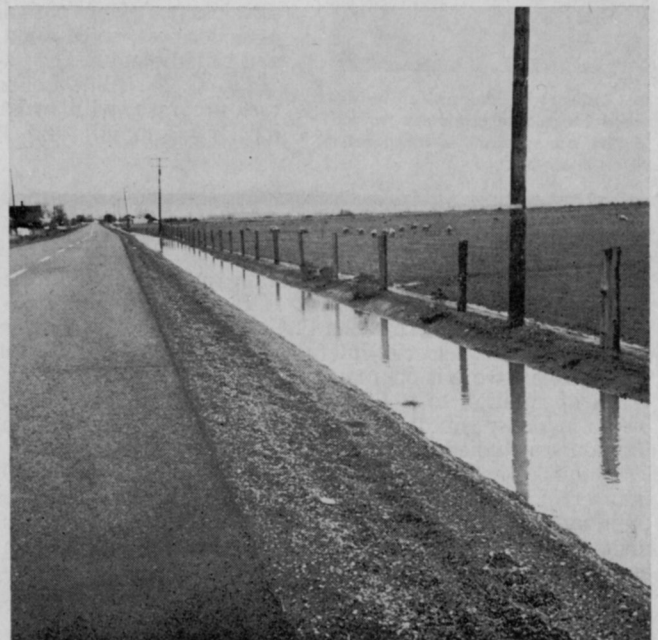
about their livestock when the spraying program was new in Lane County, there were also complaints from people whose crops or shrubs were damaged from spraying in the area. After the first year of spraying, the county found that pump pressures should seldom exceed 40 or 50 pounds per square inch. When pump pressures were reduced and wind and weather conditions were watched more carefully by the spraying crews, the complaints diminished. Many of the people who had previously complained about the spraying no longer realize that spraying is still being done in their neighborhoods. Drift is apt to result if there is a wind when the spraying is done. Volatility becomes a problem when there are changes in air currents, temperature, and humidity. These vapors are more apt to move on a still, hot day when air currents gently begin to circulate with changing temperatures.

By 1960, as a result of more experience and more caution regarding drift, volatility, pump pressures, and proper timing for spraying, very few complaints were reported. In fact, within 2 years there were many requests from people for more spraying or for advice on formulations and methods for doing their own work.

**Neglected right-of-way** such as this was common in Lane County prior to countywide spray program. Treated roadsides are not only more attractive, but have been found to be much safer.



**Farm operators find** contamination from roadway weed seeds a thing of the past where rights-of-way are regularly sprayed. Roadside above is one in Lane County and is typical of the area today.



# Survey '67:

## Turfgrass Management Training, Part 4

*From "brushup" short courses to two-year technical programs, from four-year undergraduate courses leading to B.S. degrees to research-oriented postgraduate studies, colleges around the country are stepping up their turfgrass management training programs in the face of heavy demand for graduates. With this issue WTT completes publication of its series on this nationwide study.*

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### University of Wisconsin, Madison, Wisconsin

Most students interested in turf are soils majors at the University of Wisconsin. The University offers no formal training program as such in the area of turf management. However, students are trained for turf management within the various majors offered in the College of Agriculture.

Dr. James Love of the Soils Department serves as advisor to students interested in turf management. Students majoring in Agronomy and Horticulture take courses offered by these departments plus those offered in botany, soils, entomology, plant pathology, and horticulture to gain their background in turf management. One specific turf management course is offered by the Department of Horticulture. Dr. Robert Newman, Extension Horticulturist, teaches a 2-

hour credit course in turf management and also a 5-week, non credit turf course for Wisconsin's annual agricultural short course. All students desiring to enter turf management have the benefit of on-the-job training during summers at golf courses of the state.

Tuition charges amount to \$162.50 per semester for Wisconsin residents and \$525 for non residents. A total of 12 students at the junior and senior level are now taking course work aimed at the turf management field.

Requests for information may be directed to Dr. James Love, Soils Department, University of Wisconsin, Madison, Wis. 53706 or to Dr. Robert Newman, Horticulture Building, University of Wisconsin, Madison, Wis. 53706.

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### University of Missouri, Columbia, Missouri



**Dr. Delbert D. Hemphill:** The demand for college graduates trained in turf management is far greater than the supply.

Turf training at the University of Missouri is being developed by the Department of Horticulture. Both 4-year undergraduate and graduate programs are offered in the curriculum. Degree offered for undergraduate training is a B.S. in Agriculture with a major in turf management. Dr. Delbert D. Hemphill who has helped develop the program reports that a course of study is developed to fit the needs of each student. All students are required to take courses in turfgrass management, chemistry, plant nutrition, plant physiology, plant pathology, plant ecology, business, soils, weed control, genetics and entomology.

Dr. C. W. (Bill) Lobenstein directs the turf program, with assistance in teaching by Dr. Hemphill and Professor Ronald

Taven. Other departments in the College of Agriculture are involved for courses other than those specifically within the Horticulture Department.

Initiated in 1966, three undergraduate students are currently enrolled in the new curriculum. Tuition is \$140 per semester with an additional cost of \$65 estimated for books and supplies. Requirement for entering the program is admission to the University. The fall semester begins in mid-September, 1967. A winter term will begin in late January of 1968. On-the-job training is encouraged in the program, but is not a requirement for the degree.

Direct requests for more information to Dr. C. W. Lobenstein, Department of Horticulture, University of Missouri, Columbia, Mo.

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### Cornell University, Ithaca, New York

Turfgrass management instruction and research is the responsibility of the Department of Floriculture and Ornamental Horticulture. Dr. John F. Cornman serves as advisor to students with a special interest in the field.

Graduate work is offered at both the Master's and Ph. D. levels in addition to a B.S. degree for the undergraduate. There is no specification on the diploma, however, as to the courses studied.

Requirements for the B.S. degree are general with 120 hours required for graduation. Of this total, 75 hours are electives. A student with particular interest in turfgrass management can take the 4 hours of specific instruction available plus supporting courses in horticulture and agronomy. Other material taken would likely include insect,

disease, and business management subjects. A student program is outlined with the interests of the particular student in mind.

Tuition costs vary somewhat, but college of agriculture students who qualify as residents of New York State pay \$200 per term with out-of-state students paying \$300. Admission to Cornell is difficult unless students have demonstrated superior academic ability and interest at the high school level. Application should be made by March 15 of the year in which entrance is required. Applications after this date are considered only if space is available.

For detailed information regarding turfgrass management training direct inquiries to Dr. John F. Cornman, Plant Science Bldg., Cornell University, Ithaca, N.Y. 14850.

## University of Florida, Gainesville, Florida



**Dr. G. C. Horn:** Opportunities for the career-minded turf management graduate are excellent. This field from this standpoint is the best area in agriculture today.

At the University of Florida, turf training is administered by the Department of Ornamental Horticulture. The program, directed by Dr. G. C. Horn, Associate Turf Technologist, offers a 4-year program leading to a bachelor's degree. A Masters degree in turf management is also offered. Further work leading to Ph.D. degrees is handled in cooperation with other departments.

Majors in turf management are required to take 27 hours of courses in Plant Science plus 15 elective hours in Plant Science, Agronomy, Fruit Crops, Ornamental Horticulture and Vegetable Crops. In addition, 19 hours in Ornamental Horticulture are required. These latter hours include courses in Basic Plant Materials, Turf Management, Nursery Operation, Floriculture, Advanced Turf Management, and Special Problems. On-the-job training is also a requirement.

This Florida program was started in 1947 by Dr. Roy A. Bair. Currently there are 14 students enrolled which is a record number for the program.

Entrance requirements for freshmen include being a graduate of an accredited high school, 12 academic units of English, foreign language, math, science, and social science, a "C" average in all academic courses, a score in the top 40% (total score of 300) in Florida's 12th grade tests, and a record of good conduct. Tuition was \$130 per trimester for Florida residents, and \$330 for out-of-state students. Florida is now on a quarter system, dates of which may be had by contacting the Registrar at the University of Florida.

For complete information, write Dr. G. C. Horn, Department of Ornamental Horticulture, 404 Newell Hall, Gainesville, Florida 32601.

## University of Rhode Island, Kingston, Rhode Island



**Dr. C. R. Skogley:** We could place more graduates. We are contacted by many golf clubs and commercial companies for those who graduate.

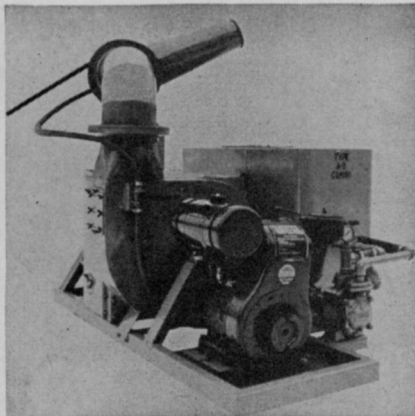
Turf training at the University of Rhode Island comes under the Department of Agronomy and Mechanized Agriculture. Dr. Robert C. Wakefield is department chairman, and Dr. C. R. Skogley is principal advisor for turf students.

Programs offered are four-year undergraduate and graduate studies. Work towards a B.S. degree falls in one of two undergraduate curriculums: agricultural science for students wishing more intensive training in basic sciences leading to graduate work; and Agricultural Technology, a curriculum less intensive in basic sciences and which may be more practical in nature. Graduate programs are directly under supervision of agronomy department staff members; courses are taken in such areas as agronomy, soils, botany, biochemistry, statistics, etc., with specific emphasis on thesis research in turf.

Begun in turf research, the Rhode Island program continues to emphasize research. According to Dr. Wakefield: "We have

one of the oldest, and, we have been told, one of the most comprehensive research programs found anywhere. Our training program for students is a relatively small one, but, we hope, a good one since the research staff and research facilities provide an unusual opportunity for students to learn by association." Turf teaching staff includes Dr. C. R. Skogley, Dr. D. T. Duff, Dr. R. S. Bell, Dr. R. C. Wakefield, and J. A. Jagschitz. A two-year training program is in the advance planning stage, and is hoped to be in operation by Sept. 1968.

Requirement for entering this program is satisfactory college preparatory work in high school plus entrance exams. Rhode Island residents pay no tuition; nonresidents pay \$600. per year. Graduate assistantships are available. Courses convene in September, with April the application deadline. Inquiries should go to Director of Admissions, Administration Building, University of Rhode Island, Kingston, R.I. 02881.



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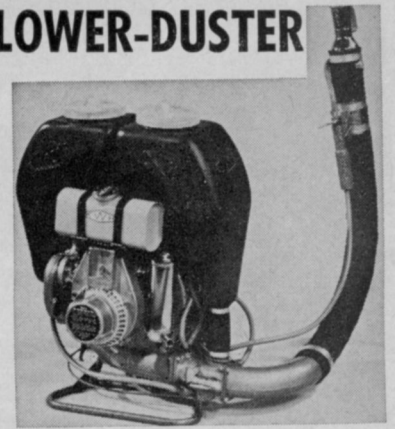
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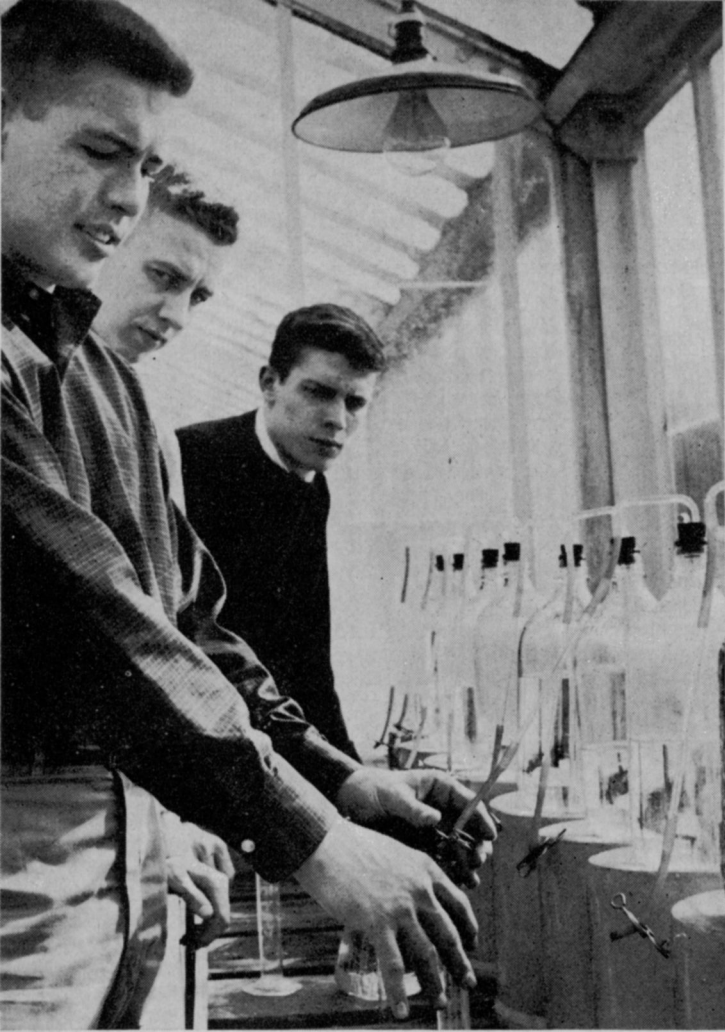
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# Turfgrass Management

**A University Field  
of Specialization  
Qualifying Students  
For the Industry**

**Panorama of Iowa State University Turf  
Training Presented By Eliot C. Roberts**

**Laboratory exercises** include work with nutrient solutions used in turfgrass culture, above. Students also study conditions on 18-hole golf course and campus grounds.

**Many classes** taken by students specializing in turfgrass management are held in Agronomy Building, right. Same holds true on most campuses since basic soil courses are mandatory for turf specialists.



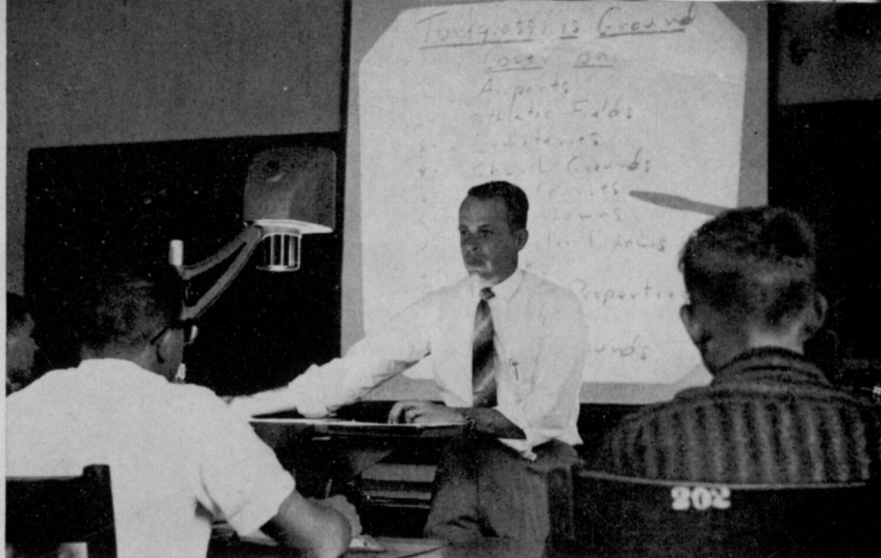
**Vegetatively propagated grasses** grown in greenhouse are inspected by student group below. Students also observe root development of various grasses grown in solution culture and maintained at different nutrient levels.



**S**KILLED supervisors and assistants for parks, cemeteries, playgrounds, industrial parks, golf courses, athletic fields, and similar areas are in demand. College training helps the young man seeking a career in turfgrass management to better serve the industry. Today, there is a shortage of professionally trained specialists.

Because of the unique need for such personnel, WEEDS TREES AND TURF magazine has completed a survey outlining training offered at the college level. Final installment of this national study is being carried in this issue of WTT.

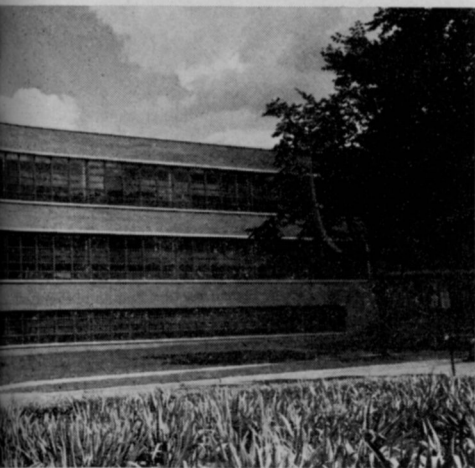
Dr. Eliot C. Roberts, professor and turfgrass management specialist at Iowa State University, offers this panorama of turf study activities at Iowa for review as typical of those at many institutions. Dr. Roberts previously taught turfgrass management at the University of Massachusetts and has kept in close touch with programs at Penn State, Rutgers and Purdue Universities.



**Lecture outline** is presented at start of a Turfgrass Management class period. Students study needs of turf based on use for all types of public, commercial and private grounds. Practical work is done in the field to supplement classroom exercises.



**Fertilizers** used on fine turf differ in physical and chemical properties. Students compare these materials prior to using them in a laboratory exercise. Different types of application equipment are also a part of training.



**Turfgrass growth**, left, is measured by weighing clippings taken during a laboratory exercise.

**Root zone soil** tells much about turfgrass growth conditions. Students, right, learn to relate foliar appearance with physical soil properties. Students also learn about grasses by evaluating amount of foliage produced under varying conditions.

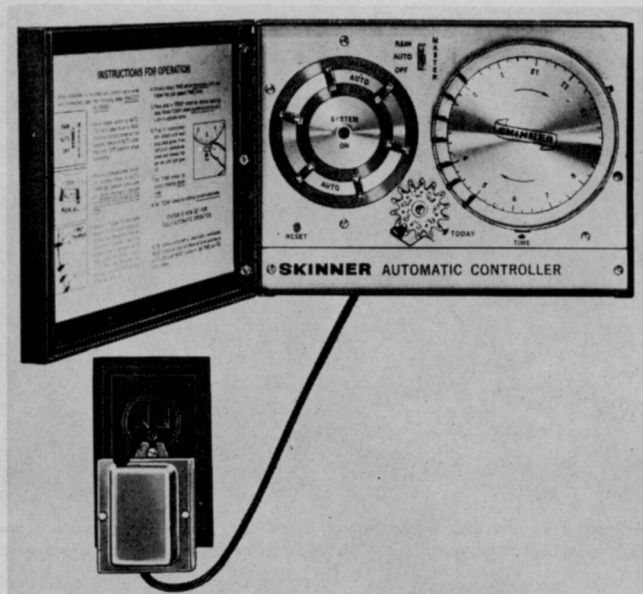


# New Products . . .

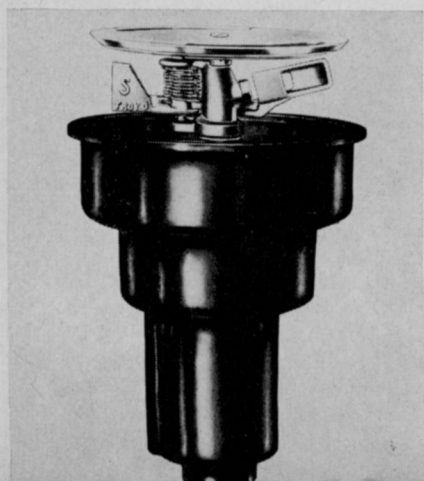
## For Irrigation Contractors And Turfgrass Supervisors



**Irrigation system, left,** reduces conventional moving time by 75% while reducing crop damage. Tangential spokes, single clamp hubs, rigid couplers, and a heavy-duty power mover, are outstanding features of this improved Shur-Roll system. The quarter-mile line normally consists of 34, five or seven foot wheels, with 32 sprinklers and rigid couplers located every 40 feet. The improved tangential spoke (as in bicycle wheels) gives 60 to 100 percent greater rim support than conventional radial spokes. A 3 h.p. engine (4 h.p. optional) drives the power-mover through a transmission with forward or reverse gears. The two mover wheels are chain driven for better traction. For more information write W625, John Bean Div., Box 9490, Lansing, Mich.

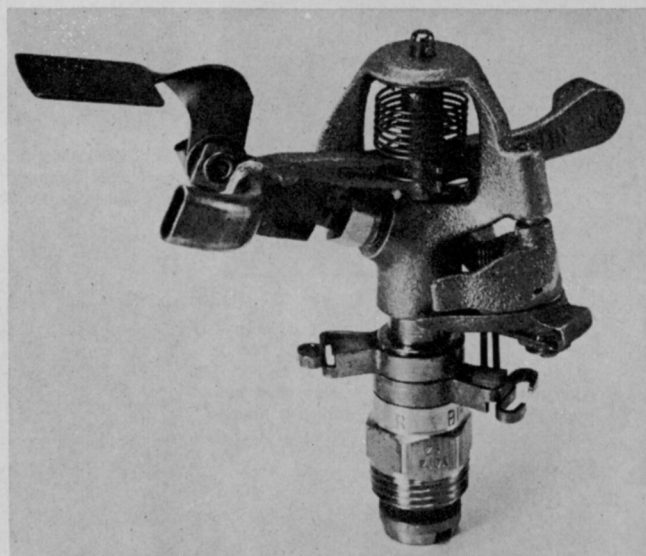
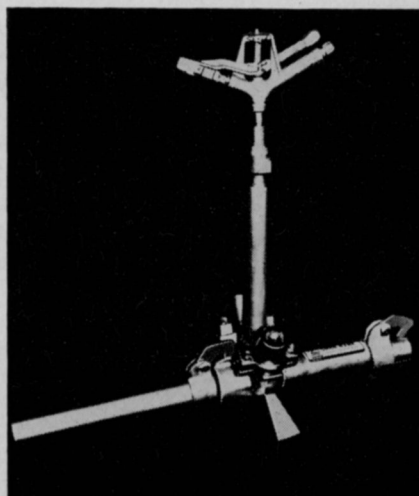


**New automatic timer** for both commercial and residential use (Models S-12 and S-6) is attractively styled and economically priced. Contractors will find it well adapted to residential system installations and the company reports it equally suitable for larger turf irrigation systems. Write The Skinner Irrigation Co., P.O. Box 70, Troy, Ohio 45373.



**Celcon body sprinkler** (Model URC-2) left, for both commercial and residential irrigation features  $\frac{3}{4}$ " inlet sprinkler with brass cover plate. Unit was developed primarily to combat rising cost of cast materials. Company reports durability equal to the metal product and the price more attractive. Write Skinner, P.O. Box 70, Troy, Ohio.

**John Bean's Sequa-Matic**, grid-type solid set of irrigation systems now feature the V-2 Sequa-Matic valve with aluminum couplers. New capacity is 10 to 30 g.p.m. Automatic sequencing valve controls individual sprinklers by water pressure on lateral lines up to  $\frac{1}{4}$  miles long. Write John Bean Div., 1305 S. Cedar, Lansing, Mich. 48910.



**All models in Rain Bird's Series 25** impact sprinklers now have new friction collars that improve the ease with which sprinkler arc can be adjusted. New stainless steel collar has a pinch control and smooth glide action that allow greater accuracy in setting the watering arc of the sprinkler. The series includes sprinklers that cover full and part circle or part circle only; some models have a Precision Jet Arm to avoid back splash. Information from Rain Bird, 7045 No. Grand Ave., Glendora, Calif.

## Tree Cavity Work

(from page 7)

ground, then shape of the excavation should be extended to the ground.

Large cavities, or those in or near crotches need to be braced. For this task, use screw rods or bolts. A single rod may be inserted through the cavity. When side walls are thin, crossbraces are necessary. With long cavities, rods or bolts are needed about every 24 inches from well below, through, and to well above the cavity.

When treating crotch cavities, use crossbraces through the cavity as well as above the crotch (See WTT, May, 1967, Page 21). Never install braces closer than within 2 inches of the lips of the cavity. Screw rods serve well when there is at least 3 inches of sound wood on each side. When the side wall is thin and does not contain plenty of sound wood, use bolts with counter-sunk washers and nuts. When cavity treatment is completed, fertilize the tree to speed recovery.

The so-called open method of treating large cavities is common on old, slow-growing trees and in resinous trees. During excavation, it is important to prevent drying and killing of the cambium. This can be done by keeping the cambium area at the edges of the cavity covered with shellac over-coated with plastic asphaltum.

With the open method, the cavity is pointed at the top and bottom, and the sides regularly and evenly shaped. Slope the bottom outward for drainage.

After excavation, and when the cavity is braced and the interior dried, the heartwood needs to be sterilized with creosote and given two coats of asphaltic wound dressing. Dress the entire area of all exposed surfaces. Renew the dressing as it weathers.

Favored cavity treatment for medium-sized and crotch cavities is the filled method. Though filling does not strengthen the tree, it does improve the looks of the tree and serves as a surface for the callus to heal across. The process is the same as for the open method except the inside of

the cavity needs to be larger than the mouth of the cavity to retain the filling. A small depression cut deeper into the wood, or use of wood or lath strips nailed in place, about 3 inches inside the mouth of the cavity will also help retain the filling.

### Grooves Provide Cavity Drainage

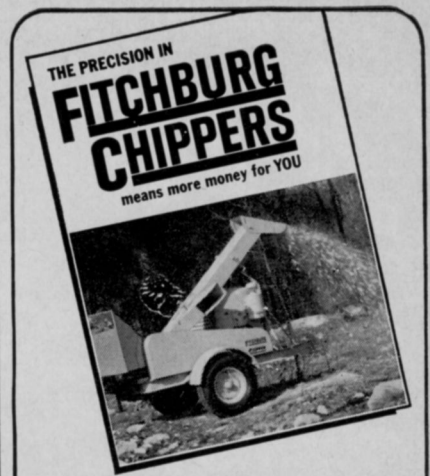
Drainage grooves need to be made on the inside face of the cavity. These are made in a form typical of the grooves in a steak platter, with the main groove ending in a depression at the bottom of the cavity. A drainpipe installed from this depression to the outside of the tree trunk just below the cavity will provide drainage. After dressing and bracing of the cavity, 3-ply asphalt felt tacked in place will keep the drainage grooves clear.

Actual filling is the final step and there are a number of suitable materials which can be used. Most common material is cement. For this type filling, use one part cement to 2 or 3 parts of clean sand (do not use ocean sand). Mix just enough water to form a stiff mortar which will hold its shape when squeezed into a lump. Such a mixture can easily be inserted into the cavity by using a trowel. Tamp thoroughly as the cavity is filled. As concrete sets, work the surface with the trowel until it is moist and smooth.

Small cavities filled with concrete can be done in a single section. But for large cavities it is best to allow for some tree movement. With these larger cavities, fill in sections and separate them with tar or asphalt paper. To permit growth of the callus, fill only to within  $\frac{1}{8}$ th inch of the cambium. Once cement is hardened, waterproof the surface with tar or asphalt.

At times, tree men prefer to use a more flexible material than concrete for filling cavities. Other common materials include asphalt with dry hardwood sawdust, excelsior, or shavings added. Creosoted wood strips or blocks may be roughly fitted for

(Continued on page 25)



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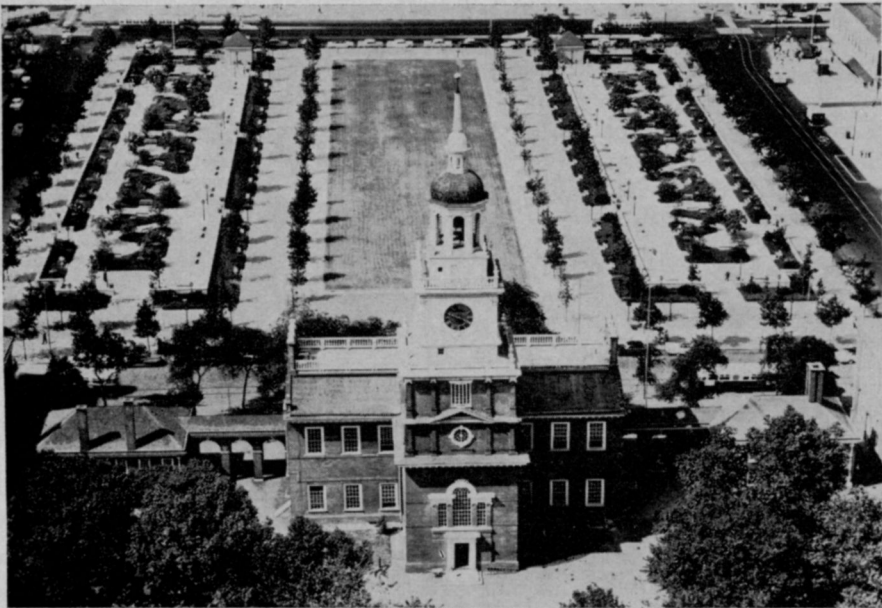
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Independence Hall with Independence Mall in the background will be toured by I.S.T.C. conventioners when they visit Philadelphia for the annual convention, Aug. 27-31.

### Orville Freeman Keynotes August Meeting of ISTC

Secretary of Agriculture Orville Freeman will be keynote speaker at the 43rd annual convention of the International Shade Tree Conference, Inc., at Philadelphia, Pa., Aug. 27-31. Secretary Freeman will appear on the luncheon program on Tuesday, Aug. 29.

Convention goers are expected to fill the Marriott Motor Hotel which is one of the newest and finest in Philadelphia according to General Chairman Hyland R. Johns of Asplundh Tree Expert Company at Jenkintown, Pa. Johns and Co-chairman Ronald L. Harper of Philadelphia Electric Company have arranged for the entire staff and facilities to be made available to ISTC members. Shuttle service for sightseers and shoppers will also be available.

Expected to be of interest to many of the ISTC group will be a 35mm slide parade moderated by Dr. Spencer H. Davis, Jr., plant pathologist at Rutgers, N. J. Interested conventioners are invited to submit 6 of their own slides which are being titled "Gripes & Brags" for showing and discussion. Dr. L. C. Chadwick, executive director of ISTC from The Ohio State University, will head a panel on shade tree supplies and the quantities avail-

able in the years ahead. Assisting Dr. Chadwick will be William H. Collins, Cole Nursery Co., Circleville, O., William Flemer III, Princeton Nurseries, Princeton, N. J., and J. Frank Schmidt, Jr., Frank Schmidt & Sons, Troutdale, Ore.

Also of broad interest to the group will be a discussion of air pollution damage to trees led by Dr. Frank Wood, plant pathologist at Penn State University. Dr. Wood is also assistant director of the Environmental Research Center for Atmospheric Pollution.

Program details in addition to these highlights are available from Dr. Chadwick, 1827 Neil Ave., Columbus, O.

### National Arborist Assn. To Meet August 27-31

Members of the National Arborist Assn., Inc., will stage their annual meeting at Philadelphia, Pa., August 27-31.

Executive Secretary Clarke W. Davis reports program developments are complete. The group will meet at the Marriott Motor Hotel in conjunction with the annual convention delegates of the International Shade Tree Conference.

Davis reports that the program committee is featuring both business and technical subjects. Robert G. Bristow, The Andersons Garden Center, Maumee, O., will present an employee-management subject titled, "Pleased Personnel Plus Profits Equal Success." Dr. Philip L. Rusden, Bartlett



Philip Rusden

Tree Research Laboratories, Stamford, Conn., will discuss drought and its effect on trees and how to combat dry periods. "Tree Diseases" will be the subject of Dr. Lester P. Nichols of Pennsylvania State University.



Board members of the National Arborist Association, Inc., who will head up the annual meeting at Philadelphia, Pa., beginning August 27 are, left to right: Kenneth P. Soergel, William P. Lanphear, III, Edwin E. Irish, President H. A. Morrison, and Riley Stevens.



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# Insect Report

WTT's compilation of insect problems occurring in turfgrasses, trees, and ornamentals throughout the country.

## Turf Insects

### RANGE CATERPILLAR

(*Hemileuca oliviae*)

**New Mexico:** No hatching on range area checked in Colfax County.

### GRASS BUGS

**Utah:** Around Alton, Kane County, largely white in appearance; grass 3 inches high. Several hundred nymphs of *Irbisia* spp., and *Labops* spp., around each grass clump. *Labops* spp., hatched in East Fork area and other seeded range areas in Garfield County. Black species hatching in heavy numbers at higher elevations in large areas of Garfield and Kane Counties.

### WINTER GRAIN MITE

(*Penthaleus major*)

**California:** Heavy in Susanville, Lassen County.

### THRIPS

**Arizona:** *Chirothrips* spp., necessitated controls on bermudagrass in commercial seed fields of Yuma County. **Nevada:** *Anaphothrips obscurus* heavy on timothy in Smith Valley, Lyon County. Damage severe in some fields; will require controls.

### SOD WEBWORMS

(*Crambus* spp.)

**Idaho:** Moths general in lawns at Bonners Ferry, Boundary County. Mating in Moscow, Latah County.

## Insects of Ornamentals

### APHIDS

**California:** *Toxoptera aurantii* medium on camellia at Fresno, Fresno County. *Macrosiphum euphorbiae*, *Acyrtosiphon solani*, and *Aphis gossypii* heavy on rhododendron nursery stock at Sacramento, Sacramento County.

### BEET ARMYWORM

(*Spodoptera exigua*)

**Florida:** Larvae, mostly this species, heavily damaged 10 percent of 40 plants of gladiolus and severely infested 10 percent of 1 acre of carnations, at Cortez, Manatee County.

### BAGWORM

(*Thyridopteryx ephemeraeformis*)

**Oklahoma:** Moderate to heavy, damaging juniper in several areas of Oklahoma County. **Nebraska:** Eggs hatching in Lincoln, Lancaster County.

### GREEN FRUITWORM

(*Lithophane antennate*)

**Maryland:** Larval injury to azalea foliage conspicuous at Adelphi, Prince Georges County.

## Tree Insects

### APHID

**Ohio:** First instars through winged adults of *Eulachnus agilis* on Scotch pines in Christmas tree planting in Lake County. First instars most prevalent. **Rhode Island:** *Prociphilus imbricator* problem on beech grafts in commercial nursery in Middletown, Newport County. **Washington:** *Cinara curvipes* nymphs and apterous and alate adults heavy on ornamental spruce at Toppenish, Yakima County.

### COOLEY SPRUCE GALL APHID

(*Adelges cooleyi*)

**Oregon:** Eggs hatched in Multnomah County on ornamental fir and spruce.

### A PINE APHID

(*Schizolachnus pineti*)

**California:** Collected from medium infestation on *Pinus mugo* nursery stock in Santa Clara County.

### FOREST TENT CATERPILLAR

(*Malacosoma disstria*)

**Colorado:** Eggs hatched in Fort Collins, Larimer County. **Minnesota:** Eggs hatched in heavily infested area at International Falls.

### CALIFORNIA FIVE-SPINED IPS

(*Ips confusus*)

**Oregon:** Killed small group of native ponderosa pine near Crawfordsville in Linn County, at elevation of 300-400 feet. First report this far north and at this low elevation of State. Records to date indicate occurrence around 2,000 feet as far north as Medford area. Emerged near Jacksonville, Jackson County, from ponderosa pine.

### SPRUCE NEEDLE MINER

(*Taniva albolineana*)

**Minnesota:** Larvae active in Minneapolis and St. Paul area and further south.

### EUROPEAN PINE SHOOT MOTH

(*Rhyacionia buoliana*)

**Ohio:** Larvae pupating in terminals of red pine in most areas. Some heavy larval populations observed in the Mohican State Forest, Ashland County.

### EUROPEAN PINE SAWFLY

(*Neodiprion sertifer*)

**Ohio:** Larvae damaged Scotch pines in scattered areas throughout State. **Pennsylvania:** Controls applied on Scotch pine plantation in Columbia County.

Compiled from information furnished by the U. S. Department of Agriculture, university staffs, and WTT readers. Turf and tree specialists are urged to send reports of insect problems noted in their areas to: Insect Reports, WEEDS TREES AND TURF, 1900 Euclid Ave., Cleveland, Ohio 44115.



J. H. Kirch

## Kirch To Author Know Your Species

Beginning with the July issue J. H. Kirch will write the well-known "Know Your Species" feature for WEEDS TREES AND TURF.

Kirch, who holds bachelor of science degrees in both forestry and horticulture and a Master's degree in Forestry from Pennsylvania State University, is a native of the Keystone state. Originally, he is from Pittsburgh but now makes his home at Ambler, Pa., where he serves as Marketing Manager of Industrial Chemicals for Amchem Products, Inc. Prior to 1966, he served as Woody Plant Specialist and as Assistant Director of Research and Development for Amchem. Kirch is a member of the Weed Society of America, the Society of American Foresters, and Rotary International. He has presented numerous papers on brush control at various weed conferences, many of which have been published.

WTT is proud to present Kirch to readers, and believes his contributions in the field of vegetation control will prove helpful and interesting.