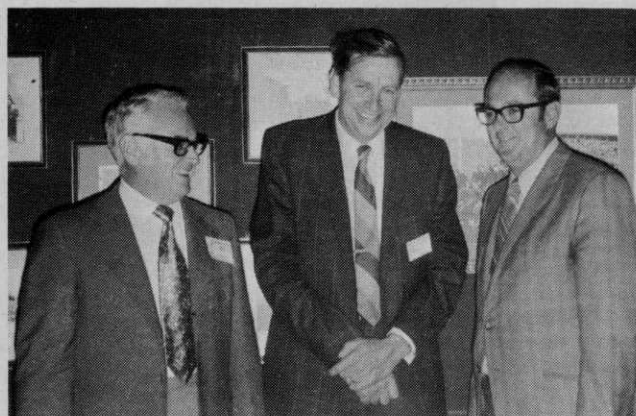


Bluegrass Sod Farm harvester in action during sod tour. Besides this farm near Allendale, growers visited Ludema Sod Farms at Clarksville, and Baldwin Sod Farms at Leslie and Stackbridge.



New ASPA board members William Latta, left, and John Nunes, right, pose with Tobias Grether, reelected president at the Michigan summer meeting. Plans are to stage major winter meeting in California.

This product, however, has only undergone one test at the 8 ounce rate in the Michigan studies. Several other similar new products including

Daconil and Elanco experimental are under test.

Dr. Jim Beard reviewed his post harvest sod heating studies. In short,

Dr. Beard said that temperature was the only significant problem in shipping sod. The basic source of heat is respiring grass blades. Thus, he said,

**Table 1. Sod strength evaluations of nine Merion Kentucky Bluegrass-Pennlawn red fescue mixtures.**  
(6 x 15' plots; 3 reps; seeded August 26, 1968, and September 17, 1969)

Seed Mixture on percent by Seed Number Basis*		Michigan Sod Strength Test (in pounds)			
Merion Kentucky Bluegrass	Pennlawn Red Fescue	1968 Seeding Tested in		1969 Seeding Tested in	
		1969	1970	1970	Ave.
100(100)	0( 0)	118	92	85	98
90(70)	10(30)	123	111	99	111
80(50)	20(50)	131	94	90	105
70(41)	30(59)	137	103	87	109
60(28)	40(72)	136	128	92	119
50(20)	50(80)	124	112	117	118
40(15)	60(85)	149	132	95	125
30(10)	70(90)	135	134	106	125
20( 6)	80(94)	108	134	95	112
10( 3)	90(97)	109	106	71	95
0( 0)	100(100)	109	54	59	74

\*Percentages in parentheses are on a seed weight basis.

**Table 2. Sod strength evaluations of eleven Kentucky bluegrass blends.**

(6 x 15' plots; 3 reps; seeded August 26, 1968, and September 17, 1969)

Bluegrass Blend Components						Michigan Sod Strength Test (in pounds)			
Merion % of blend	Newport % of blend	Park % of blend	Fylking % of blend	Windsor % of blend	Prato % of blend	1969 Seeding Tested in		1969 Seeding Tested in	
						1969	1970	1970	Ave.
		33	33	33	33	128	105	119	117
33			33			106	106	101	104
50					50	94	105	101	100
50		50				109	97	88	98
50				50		83	106	106	98
50					50	93	98	99	97
33			33	33		93	106	84	94
	33	33	33			114	74	91	93
	33			33	33	100	79	95	91
33	33	33				81	97	84	87
50	50					91	88	80	86

the shorter the cut before harvesting, the less the heating problem. Also, he pointed out that grass treated with less nitrogen prior to lifting and transporting suffers less deterioration from heat.

Of more than passing interest was Dr. Beard's report on the use of grass clippings. The MSU station has developed research dealing with pelletized grass clippings. While of potential practical use for livestock, small animal or poultry feed, the pelletized clippings, may prove to be an exciting product when used for laboratory animal litter. Dr. Beard pointed out that 60 million lab animals are used in this country and that their litter is changed about twice weekly. Grass clippings conceivably could compete with the ground corn cobs, shavings, and similar products now in use and costing about \$70 to \$100 per ton.

ASPA members reelected Tobias Grether, Cal Turf, Camarillo, Calif., as president. They also set their coming annual meeting dates as February 22-24, with the convention to be held in California near Disneyland. Details will be forthcoming as plans for the winter session are firmed up.

Other officers and directors were named as follows: Jack L. Kidwell, Kidwell Turf Farms, Culpeper, Va., vice-president; William Latta, Princeton Turf Farms, Kansas City, Mo., secretary; George Stewart, Karandrew Turf Farms, Suffield, Conn., treasurer. New directors elected were: John Nunes, Nunes Turfgrass Nurseries, Patterson, Calif., and Latta.

## **Spence Davis Co-Authors Insect, Disease Leaflet**

A new leaflet on insect and disease control for lawn and turf areas has just been released by Rutgers University.

Authors of the publication include Plant Pathologist Spencer H. Davis, Jr., who besides being a staff member at Rutgers also serves as executive director of the Consulting Arborists Association, and Entomologist Louis M. Vasvary.

Subject matter includes a section on chemical pesticides, special lawn pest problems, lawn insects and insecticides, lawn diseases, and fungicide use on lawns.

Single copies are free by writing Bulletin Clerk, Ag Communications, P.O. Box 231, New Brunswick, N.J. 08901.



**Doyle W. Jacklin**

## **Doyle Jacklin Elected President Seed Trade**

Doyle W. Jacklin was elected president of the Lawn Seed Division of the American Seed Trade Association at a St. Louis, Mo., annual meeting. He is sales manager for Jacklin Seed Company, Dishman, Wash.

The American Seed Trade Association is a national and semi-international organization which promotes the general business interests of persons, firms and corporations engaged in the seed industry in the United States, Canada, and Mexico. Headquartered in Washington, D. C., the organization considers and attempts to solve problems of the seed industry, and to promote a high standard of business ethics in the seed trade.

Jacklin will serve as president of the Lawn Seed Division for a period of one year, during which time he will also assume a directorship of the association.

## **Ohio Turfgrass Conference Firm For Dec. 7-9**

Executive Secretary Robert W. Miller reports that the Ohio Turfgrass Foundation has set firm dates for their annual Conference and Show. Dates are December 7-9.

The show which has become probably the largest single state show annually attracts both exhibitors

and show visitors on a regional and national basis. This year it will be held at the Sheraton-Cleveland Hotel, Cleveland, O. Exhibit details are available directly from Miller, 1827 Neil Ave., Columbus, O. 43210.

## **Lofts Pedigreed Seed Retains Name of Baron**

Peter S. Loft, president of Lofts Pedigreed Seed, Inc., Bound Brook, N. J., has announced that the company will retain Baron as the name for the company's new Kentucky bluegrass variety, which was recently released to the industry.

The name, Baron, was found after being registered and marketed on a worldwide basis, to be in conflict with a Dow Chemical Company herbicide by the same name.

Loft reports that Dow, headquartered at Midland, Mich., released the name at a very fair price and he commended the company for its cooperation and fine attitude in the negotiations.

Loft states that the new crop of Baron looks particularly good and will be available shortly as certified Baron Kentucky Bluegrass.

## **LTV Aerospace Corporation Acquires R. L. Wilson Co.**

R. L. Wilson Co., Inc., known in the weed control industry for its FoamSpray, has been acquired by LTV Aerospace Corporation, Dallas, Tex.

Wilson supplies facilities support service for the petroleum and petrochemical industries. The Wilson acquisition will operate as a wholly owned subsidiary according to Forbes Mann, LTV president. Robert L. Wilson, Sr., company founder, 69, will shortly retire but will remain as a consultant for a period of time.

The Wilson agri-chemical division, formed two years ago, produces fungicides, herbicides and insecticides that are marketed nationally for industrial, home and garden use.

This division recently introduced a chemical additive that causes pesticides to form larger droplets and foam when being sprayed. Called FoamSpray, it reduces wind drift and helps hold chemicals on foliage for longer periods of time.



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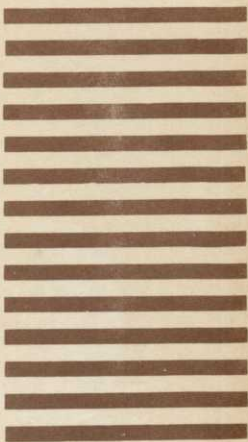
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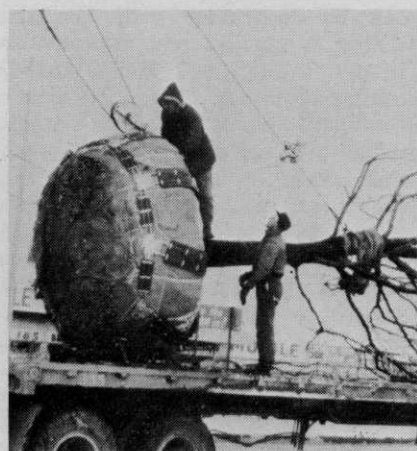
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Making it official: Golf course builder Bob Chakales of Richmond, Va., president-elect of the Golf Course Builders of America, is all smiles as he examines the association's new membership certificate.



Beseler tree sling in use on large size tree.

## Tree Sling For Big Trees

Herman F. Beseler, Minneapolis, Minn., now reports his tree moving equipment company is making a sling which will handle tree balls up to 8 feet in diameter and weighing 50,000 pounds. This is the Model F. Lesser sized models handle weights of 22,000 and 37,000 pounds. Slings for smaller sized units have always been available.

Beseler reports that the patented slings feature a wide section design to minimize damage to the ball, and high strength wire rope cables with new compact fittings.

## Musser Turf Foundation

### Granted Tax-Exempt Status

Tax-exempt status has been granted by I. R. S. to The Musser International Turfgrass Foundation of the H. B. Musser Turfgrass Fellowship, Inc.

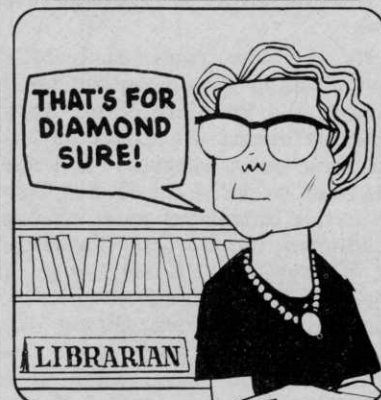
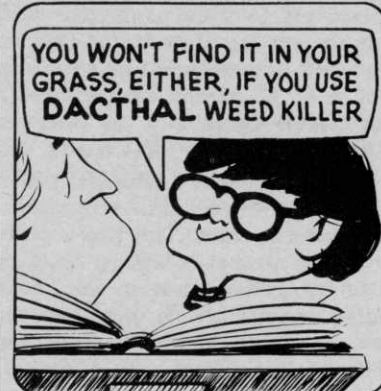
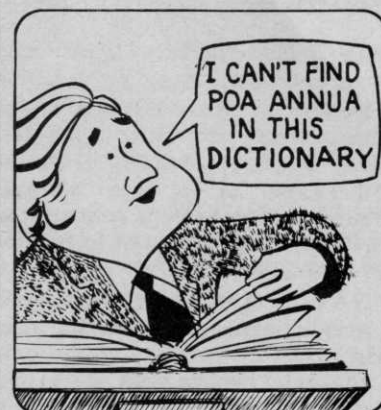
President F. V. Grau reports that contributions are tax exempt and may be made out to MUSSER TURFGRASS FOUNDATION and sent to Mr. Ben O. Warren, Secretary, Palos, Park, Illinois 60464.

As funds grow the income will be expended for Fellowships leading to the Ph.D. degree in Turfgrass Management. The Musser Foundation is global in scope and candidates for the degree will be screened from every corner of the world on a non-discriminatory basis. Research institutions likewise will be carefully chosen to complement the selected field of study.

Officers and directors all serve without salary and pay their own travel expenses to meetings.

The Musser Foundation was started by a group of his friends in the Pennsylvania Turfgrass Council who valued highly the accomplishments of this dedicated teacher and researcher. The late Prof. Musser long will be remembered for Pennlawn fescue; for Penncross bent; for his reports on fertilizers, crownvetch, weed control, turfgrass management studies; and for his authorship of the U. S. G. A. sponsored book "Turf Management." The effects of his work, like his students, have gone 'round the world and have benefited turfgrass lovers in every walk of life.

Questions may be directed to Dr. F. V. Grau, President, Box AA, College Park, Maryland 20740, or to Dr. J. M. Duich, Secretary, 21 Tyson Building, University Park, Pennsylvania 16802. Directors of the relatively new foundation are: Dr. Fred V. Grau, President, Howard R. Taylor, Jr., First Vice President, Dr. James R. Watson, Second Vice President, Dr. Joseph M. Duich, Secretary, Ben O. Warren, Treasurer, Walter D. Anderson, Warren A. Bidwell, Bob Dunning, Arthur V. Edwards, Stan A. Frederiksen, Ferdinand Garbin, Tobias Grether, Harold K. Howe, Dr. Henry W. Indyk, Arden W. Jacklin, Dr. Russell E. Larson, William E. Lyons, Thomas C. Mascaro, Dr. Gene C. Nutter, Alexander M. Radko, C. E. Robinson, Eberhard R. Steiniger, John I. Sutherland, and Albert W. Wilson II.



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One early spring application is sufficient to check most weeds. But with *Poa annua* and other late germinating grasses, try a second application in late summer. Always read the label before using any herbicide.

Dacthal for turf is also available in 5% granules. Ask your dealer about Dacthal or write Agricultural Chemicals Division, Diamond Shamrock Chemical Company, 300 Union Commerce Bldg., Cleveland, Ohio 44115.



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alone." The "added effect" from these mixtures does not respond uniformly on all weed species. Some species show very little synergistic effect. Dandelion, readily controlled with 2,4-D, is in this category, where any increase in control over 2,4-D alone can be traced to the dosage of the added MCPP.

The control of broadleaved weeds is greatly expanded from the mixture of 2,4-D, MCPP and dicamba to the point where with the proper adjustment of ratio and dosage only Speedwell (*Veronica*) is still difficult to control. Because of this unexpected improvement in weed control, a U. S. patent was granted to the Green Cross Div. of Sherwin-Williams Company of Canada, Ltd.

These increased herbicidal effects do not carry over into ornamentals and grass species. The three herbicides are probably acting on three different systems within the broadleaved weeds. It is possible that one herbicide while having very little visible effect, could make a weed susceptible to a second chemical.

At the low rates used, MCPP and dicamba have no effect on the grasses and therefore do not apparently influence the effect of 2,4-D on these grass species. Field studies in all areas of the United States with the three-component mixture, conducted by Gordon Corporation of Kansas City, Kansas, who are the exclusive makers of this mixture in the United States, have clearly demonstrated that 2,4-D when used at high ratios, is injurious on Bentgrass and St. Augustine grass. The tests do show that successful weed control can be obtained without injury on these two grasses by reducing the 2,4-D component and increasing the MCPP portion of the three-way mixture.

The product, Banvel D (dicamba) has had adverse publicity regarding injury to ornamentals. It is alleged that the injury occurs when the dicamba is leached into the root zone of the ornamental plant when rain follows dicamba application to turf. While it cannot be argued that injury has not occurred, the amount of dicamba applied may well have been misrepresented. Careful field studies indicated that injury can occur when 1/2 pound per acre of dicamba is applied to the ground at the base of an ornamental and then watered in. At these rates, a few ornamental plants showed injury symptoms and recovered. However,

Table 1: Chemical treatment on pigweed.

CHEMICAL	Amount of Chemical in ounces per acre needed for 90% control of Redroot pigweed.	
	Used alone	Used in combination
2,4-D .....	10.2	1.37
MCPP* .....	30.0	0.68
DICAMBA .....	3.0	0.49
Total Chemical Per Acre .....	43.2	2.54

\*d. isomer only

usage on home lawns at the 1/2 pound per acre rate of dicamba is not necessary when used in combination with 2,4-D, MCPP and dicamba, less than 1 1/2 ounces per acre of dicamba is required for excellent weed control, with complete safety.

The method of application also has a great influence on the safety and performance of a product. When a product is applied as a spray, the droplets of the spray are largely intercepted by the weed and turf foliage and very little chemical actually reaches the surface of the ground. The mechanical barrier effect of the grass thus eliminates dicamba injury from liquid sprays at these low rates.

Seven years of use in Canada and other countries and usage to date throughout the United States has not resulted in a single report of injury to ornamentals. However, the application of a "weed and feed" or granular product goes through a slightly different mechanical filtering process during application. The heavier fertilizer particles fall through the grass and come to rest on the ground. If the chemical is absorbed into these particles, it may be carried to the ground surface to be gradually released as the particle breaks down.

The Dimethylamine salt formulation commonly used to spray on fertilizer to make a dry "weed and feed" product is totally water soluble and moves freely in the soil. The acid form of dicamba, however, is much less soluble in water. It apparently becomes tied up in the soil surface and resists leaching. A dry dust concentrate of controlled particle size can be made and dry mixed with the fertilizer using the acid form of dicamba. Properly prepared, the acid formulations are equal to, or perhaps more effective, as herbicides than the Dimethylamine salt. Made in this manner, the acid herbicides are on the surface of the fertilizer in their own

particle form and not absorbed into these fertilizer particles. In this form, much of the dust adheres to the weeds as the "weed and feed" product is applied. This has a dual safening effect on the dicamba. Not only is less material reaching the ground because the acid dust is collecting on the leaves, but the dicamba acid which does reach the ground, remains on the surface.

The proper usage of mixtures can therefore result in substantial improvement in weed control using minimum amounts of chemical. Greater numbers of weed species can be controlled with increased safety to grasses and ornamentals. In the case of 2,4-D, MCPP and dicamba mixtures, there are clearly demonstrated synergistic effects which give far greater weed control than would be expected considering the spectrum of each herbicide alone. In the case of safety to grasses, it is possible to adjust the amount of each component, reducing those which are damaging to grass and increasing those which are safe. As far as ornamental injury from dicamba is concerned, there is no increased effect from the mixture since only the dicamba is root absorbed.

Also due to greatly reduced dosages the amount of dicamba applied per acre is so low that no injury can result.

Further safening effects can be obtained with "weed and feed" products by utilizing the acid formulations.

Without the benefit of synergism, the indiscriminate use of mixtures can be dangerous. If a full dosage of each ingredient is used, not only would cost be prohibitive, but an unnecessary amount of chemical would be introduced into our recreational environment.

Note:  
Mixtures of 2,4-D, MCPP and dicamba under the Green Cross patent are available under the trade names of Trimec, from Gordon Corporation, Kansas City, Kansas, and turf, lawn and garden marketers.

## FMC's Tandex® Registered As Brush Control Agent

Tandex®, a new soil sterilant herbicide developed by FMC Corporation, Niagara Chemical Division, Middleport, N.Y., has been granted registration as a brush control agent by the Environmental Protection Agency.

Tandex in 10 percent granular form may now be used to control oaks, manzanita, and chamise on non-crop land. It had previously been registered for use in wettable powder and 4 percent granular formulations for weed and grass species and such brushy plants as sumac, poison ivy, and brambles.

The new label permits Tandex 10 granules to be applied at rates of 2½ to 5 ounces (5-10 tablespoonsful) per tree, shrub or brush clump. The company recommends that granules be spread under the foliar canopy or placed near the base of small trees or brush. For larger trees, the recommended useage calls for applying in several places.

The chemical has a very low order of mammalian toxicity, absence of fumes, and a long period of activity, according to FMC data.

## Ohio Turfgrass Foundation To Sponsor Golf Tournament

A golf tournament in the interest of research is being sponsored by the Ohio Turfgrass Foundation.

Set for sometime in September, the tournament will be played at the Scarlet Course at Columbus, one of the Ohio State courses.

The OTF has consistently financed research in the turfgrass field since its founding. Most profits from the major turfgrass conference and show each year have traditionally gone for this purpose.

The tournament details are now being finalized. Right now, two shotgun starts (morning and afternoon), full handicap for all participants and an entry fee to the Ohio Turfgrass Foundation; four-man teams will be competing for four places with a total of \$1,000 in prizes. A free steak dinner for all participants and free refreshments on the course will be furnished. Entries will be limited to the first two hundred players (first fifty teams). Entries will be selected on a first come basis.

Anyone wishing to play may contact Paul E. Mechling, 5201 Corey Road, Sylvania, Ohio 43560.



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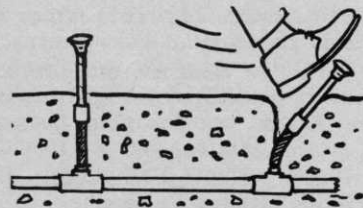
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## LETTERS TO THE EDITOR

### Problem?

I believe we can resolve the slight problem created by the printing of the crown gall article in the June, 1971 issue of "Weeds, Trees, and Turf." If possible, could you print a correction of the spelling of my name (middle initial "K") and a brief statement explaining the origin of the information contained in the article. A statement to the effect that the "article was condensed from a talk presented at the annual Ohio Nurserymen's Short Course, Columbus, Ohio, January 28, 1971" should suffice.

I am indeed pleased that you considered my talk worthy of publication. We do, however, have certain procedures to follow before we can publish an article which makes this situation a little unusual. But, I believe that we can resolve the problem with the above correction.

Thank you for your cooperation in this matter.—W. K. HOCK, Research Plant Pathologist, USDA, ARS, Delaware, Ohio.

Editor's Comment: We see no problem in publishing this information on crown gall. Either it is public information or it is not.

The data on crown gall printed in the June issue was taken directly and verbatim from a joint Ohio State University and USDA information piece which is published regularly in season and known as "Nursery Notes." The by-line from the official release also carried the wrong middle initial and this we regret.

However, in the public interest we feel we must make our position as a publisher clear. We do not condone the not uncommon practice of a public employee using public funds for research and then assuming the right to determine who will publish and in what order. The original telephoned objection which preceded the above letter referred to the fact that first publication of the crown gall data was to be in an association publication—this after the data was made public via a speech and via a government information sheet.—A. E.

### Park Executive Opinion

The "OPEN LETTER"—CODE OF

ETHICS letter submitted by a group of Bay Area Park Directors and reprinted in your Weeds, Trees, and Turf issue of June 1971 expressed the opinion of hundreds of Park Executives. It is unfortunate that our fellow park men were unaware of the letter. I can assure you many signatures would have been affixed to the document.

Enclosed comments are from a letter sent to the American Park and Recreation Society three years ago in line with the thoughts expressed in the "OPEN LETTER."

My letter was ignored in its entirety by the American Park and Recreation Society in that not a word was printed as had been requested.

My comments:

1. Since the merger of the American Institute of Park Executives and the Recreation Society, a gradual downgrading of the Park Exec. is becoming more prevalent.

2. Demands by today's—civic organizations — requesting Park and Recreation Directors, place a higher priority on a recreation background than the more technical park background.

3. From an academic viewpoint—the scholastic requirement for a degree in recreation is far less demanding than a similar degree in agriculture.

The scope of endeavor of the park man is heavy with the technical requirements.

To cite a few:

Equipment of the trade, playground equipment planning, silviculture, agronomy, botany, pomology, entomology, chemistry, forestry, hydraulics, turf diseases, insecticides, herbicides, fungicides, landscape architecture, geology, floriculture, design and development, golf course maintenance and development, marina design and development, tree surgery, and engineering.

4. The increasing demand for recreation or open space the past 4 years has led many civic organizations, primarily city and county to draw the conclusion that the "primo facie" of a director is a recreation background.

NOTHING can be further from the FACT—WITHOUT THE PARK FACILITIES YOU HAVE NO RECREATION.



Without the technical ability of the park men you have no parks to supply the facilities.

5. We do not intend herein to belittle the Recreation Director. He has a job to do, many perform to the best of their ability. It is one thing to know how many pounds of air go into a football, or how far apart the yardage markers should be. It is another thing to have a fine field of turf free of disease, of weeds, or mud to play the game on.

6. Many cities and counties that have set a pre-requisite on recreation, in preference to park or agricultural background have within 6 to 8 months after the initial employment of a recreation oriented director been forced to employ an asst. director to actually administer the parks and the requirements of the community.

Does this procedure amplify the basic principles of economical or efficient government?

We do not think so—

The primary purpose of our comments was an attempt to illustrate the dismal failure of merging into one, two factors, with total disregard for the many years of study, responsibility and work that was required to obtain the luxury of administrative ability and experience.

Political and civic leaders have become aware of the ecological and environmental crisis. They are also aware of the vital part the Park Director plays in its success or failure. ROBERT G. PELUSI, 2291 Streblov Dr., Napa, Calif.

#### Park Assn. President Speaks

In the June, 1971, issue of **Weeds, Trees and Turf** you have printed a letter from Allan W. Hammer, Pasco Balzarini, Jules L. Francard, Ted Harpainter and Grayson Mosher. The letter is addressed to me as President of the American Park and Recreation Society and it takes issue with the definition of "parks and recreation" as stated in the APRS Code of Ethics. It reads as follows:

"Parks and recreation provide the opportunities for leisure living which is satisfying, meaningful and necessary for the purposeful fulfillment of life: mental, physical, emotional, so-

cial and cultural. They include the leadership, services, and facilities desirable to achieve such a quality of life."

On May 24, 1971, I sent the following letter to the gentlemen listed above:

"Please forgive the delay in my answering your letter of April 1, 1971. Your letter went to our office in Washington, was sent to me and I have been trying to run down some information to include in the letter. In order not to delay longer, I have asked Earl Gaylor to send you some names—see accompanying letter.

"We appreciate receiving your thoughtful comments, especially the proposed definition. A copy of your letter had been forwarded to our Advisory Committee on National Issues and Policies for review and recommendation. (Earl Gaylor is Chairman.)

"You will be interested to know that about 200 APRS members participated in drawing up the Code of Ethics. All State Societies were involved, including CPRS. (Earl will send you names.)

"Part 4 of the Code provides for amendments as follows: 'Upon written request to the APRS Executive Secretary by five percent (5%) of the voting members, or by a majority vote of the Board of Directors, amendment(s) to the Code of Ethics are to be submitted by mail ballot to the voting membership of the society . . .'

"Work on the Code of Ethics was initiated by the APRS Board in the Fall of 1969. The Code was unanimously adopted in the Fall of 1970, and mailed out in March, 1971.

"Again, thank you for your letter."

Thank you for printing the letter as it opens up new lines of communication and give APRS an opportunity to share its ongoing work with many new people. I hope you will be able to find some space for at least a portion of my reply. HENRY T. SWAN, President, National Recreation and Park Assn.

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**WATER WELL MANUAL:** A practical guide for locating and constructing wells for individual and small community water supplies by Ulric P. Gibson, Executive Engineer, Water Supply, Rural Areas, Ministry of Works and Hydraulics, Guyana, and Rexford D. Singer, Associate Professor of Environmental Health, School of Public Health, University of Minnesota. 1971—156 Pages—Illustrated, Paper, \$5.50.

Ground water is one of our most important natural resources. Its proper development by means of wells is a matter of considerable interest. This book covers the fundamentals of the occurrence and movement of ground water; the location, design, construction, and maintenance of water wells; pumping equipment; and sanitary protection of ground-water supplies. Written in a clear and easy-to-read manner, the book contains more than 100 illustrations.

The authors have intended it to serve as an introductory textbook for water well drillers, engineers, geologists, agriculturists, water works operators, and students, as

well as others interested in understanding ground water. In addition, scientists, teachers, home builders and owners, and public health officials will find it full of valuable information. The book should prove to be a useful reference source in libraries and offices.

**WATER WELL MANUAL** was originally published by the Agency for International Development of the U.S. Department of State to assist people living in the developing countries of the world who are without adequate supplies of good quality water. Because of the paramount importance of this subject to everyone, Premier Press is pleased to make this book available for distribution on a world wide basis.

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edge of modern field methods, equipment, and practice.

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**insect report**



**TURF INSECTS  
MEADOW PLANT BUG**

(*Leptopterna dolabratus*)

MISSOURI: Adults collected in Sullivan and Linn Counties. These are new county records.

**WESTERN TENT CATERPILLAR**  
(*Malacosoma californicum*)

OREGON: Light to moderate on bitterbrush in central Jefferson County. About 30 percent of plants examined at one locality 1-5 active tents per bush. Two percent of bushes completely defoliated. Tents also noted along highway north of Bend, Deschutes County. Late instars present.

**INSECTS OF ORNAMENTALS  
BAGWORM**

(*Thyridopteryx ephemeraeformis*)

MARYLAND: Second instars active throughout state. Heavy on junipers and deciduous plants. TENNESSEE: Caused severe damage to planting of white pines for Christmas trees in Hamblen County. Trees 4-5 feet tall with top 2 feet of each tree dead. Immatures feeding on needles, bark, and woody portion of trees. Damaging white pines and junipers in Franklin County. Heavy on cedars in Fayette County.

**HOLLYHOCK WEEVIL**  
(*Apion longirostre*)

KANSAS: Adults found on hollyhock in nurseries in

Wabaunsee, Cloud, and Saline Counties. These are new county records. MISSOURI: Adults collected at Eldorado Springs, Cedar County. This is a new county record.

**TREE INSECTS  
JACK PINE BUDWORM**

(*Choristoneura pinus*)

WISCONSIN: Severe defoliation occurred in portions of six townships in Douglas and Bayfield Counties. Infestation covers 20,000-30,000 acres.

**SPRUCE BUDWORM**

(*Choristoneura fumiferana*)

MAINE: Pupating in southeast area. Survey shows pest over much of spruce and fir area of state from Calais, Cooper, and Robbinston to Baxter Park and Upton. PENNSYLVANIA: Heavy on hemlock, many trees completely defoliated in Centre County; heavy in Elk and Cameron Counties. MICHIGAN: Larval feeding completed in Upper Peninsula, damage evident; pupating. Damage very heavy again this year in Michigan area of Marquette County. Aerial survey of infested area to be made.

**FRUITTREE LEAFROLLER**

(*Archips argyrospilus*)

PENNSYLVANIA: Peak moth emergence observed; damage unusually severe on ornamentals and shade trees in central areas.

**PINE LEAF CHERMID**

(*Pineus pinifoliae*)

MAINE: Eggs hatching on white pine needles; nymphs settling on 1971 shoots.



# classifieds



When answering ads where box number only is given, please address as follows: Box number, c/o Weeds Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

Rates: "Position Wanted" 10¢ per word, minimum \$3.00. All other classifications 20¢ per word, minimum \$4.00. All classified ads must be received by Publisher the 10th of the month preceding publication date and be accompanied by cash or money order covering full payment. Bold-face rule box: \$25.00 per column inch.

## FOR SALE

**DOUBLE EDGE sod cutter blades.** Will fit any Ryan sod cutter. Works like double edge razor blade. Cuts much more sod per blade. Made to bolt on both ways. \$24.00 plus postage. New automatic sod loaders for direct loading to pallets, trucks or trailers. No workers needed on ground. Both products developed and designed by Hadfield. Write or call Glen Hadfield, 4643 Sherwood, Oxford, Michigan 48051. Phone 313 628-2000.

**MODERN ESTABLISHED sod farm** located North East United States. Fully equipped with irrigation, harvesting and maintenance equipment. Complete storage and repair facilities and office. Established sales outlet assure annual \$6 million square feet or more. Sale offer for health reasons. Interested parties please write to Box 68, Weeds Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

## FOR SALE

Due to the death of my husband I will sell complete line of tree equipment, business and 3 ac. es. Located on Highway 23, Ottawa, Illinois. \$49,000, \$9,000 down - will take contract for the balance. Phone 815 932-4209 evenings.

**SPRAY AND TREE SERVICE**—Illness forces sale of fast growing but stable business. Regular four time per year customer route. Very modern equipment. \$34,500.00, terms. Write: George DesBrisay, 333 American Bank Bldg., Portland, Oregon 97201.

## USED EQUIPMENT

**VERMEER model 18, series 188,** \$2,800.00; 1968 Asplundh 16" 8 cylinder chipper, \$3,600.00; Hardie sprayer 35 GPM (as is), \$300.00; 1968 5T Alenco crane with 60' boom extension on Ford chassis, \$12,500.00. Osborne Bros. Tree Service, Mentor, Ohio 44060. Phone 946-4355.

**FOR SALE—Sky Worker 50 foot** working height. Model 1044A, mounted on 1966 F-600 Ford truck. Actual miles, \$10,000, good condition, just checked over at factory. Glenn Sowers, Jr., P.O. Box 74, Sycamore, Ohio 44882. Phone 419 927-9752 after 6:00 P.M.

**FOR SALE: 7 gang Roseman mowers,** \$1150.00; 13 gang Roseman, \$2100.00; 18" Ryan sod cutter with Rollryder attachment, \$795.00. Foulkes Sod, Fall River, Wisc. 53932. Phone 414 326-5267.

## POSITIONS WANTED

**AGGRESSIVE young man** desires position of assistant or superintendent at a golf course. Has associate degree with majors in outdoor recreation and soils. Honors graduate. Four years seasonal employment. Draft exempt. For resume write William Lamers, 250 S. Willow St., Kimberly, Wisc. 54136.

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Phone 216/753-2259

### Pine Tree Rinse (from 11)

*Pinus halepensis* and *Pinus radiata*. High calcium content of the Colorado River water is a contributing factor to the weakening of these trees, making them susceptible to infection with red spider mites and borers. Varied efforts, including sprays, fertilizer, and acidification of the soil, to bring these trees back to health have had little success.

George Kempland, Park Supervisor for the City of San Diego, hit on the idea of using the city fire department's snorkel truck to wash the grit covering some 100 pine trees in Presidio Park.

"I heard that the snorkel was used in periodic drills in a parking lot of Balboa Park," said Kempland. "I thought instead of just wasting the water that it could be used on the trees in the park. We need the snorkel because the pine trees are tall." Operation Hose Down thus became a coordinated effort of park maintenance and fire department personnel.

"The trees washed are located in lawn areas and most water was absorbed," noted Kempland. "Water which did fall on paved areas ran into canyons and was also used."

Clear water was pumped. It fell from the trees black, rinsing both grime and dead needles, plus other accumulated debris. Rainfall in the San Diego vicinity being moderate, the washing did more cleaning than the heaviest rainfalls.

"Trees took on an immediate healthier appearance and showed a noticeable growth within 30 days," said Kempland. "We anticipate using this system in late summer and again in early fall. If repeatedly successful, the operation could be expanded throughout San Diego's city parks."

James R. Garinger, a captain in

## —Advertisers Index—

Applied Biochemists, Inc.	36
Asplundh Chipper Co.	34
BAG Corporation	34
Bar Way Mfg. Company	29
Beseler Equipment Co.	49
Brillion Iron Works, Inc.	6
Samuel Cabot, Inc.	46
Cal-Turf	10
CLM National	37
Conwed Corporation	35
Davey Tree Expert Co.	7
Diamond Shamrock Co.	24, 43
Ditch Witch Trenchers	23
Dow Chemical Co.	2nd Cover
FMC Side Winder	37
Geigy Agricultural Chemicals Div.	5
Golf Course Builders of America	45
Gordon Corporation	47
Hercules, Incorporated	2A & 2B
Jacklin Seed Company	38
King Brothers Industries	45
Limb-Lopper Co., Inc.	9
Lindig Mfg., Inc.	28
Lofts Chandlerlin Seed Company	4th Cover
Merion Bluegrass Assn.	17
Mitts & Merrill, Inc.	3rd Cover
Mott Corporation	39
Nursery Specialty Products Co.	29
Precision Chipper Corp.	15
Roto-Hoe Co.	45
Safety Test & Equipment Co.	25
Servis Equipment Co.	21
Skyworkers, Inc.	36
Stihl American, Inc.	3

the San Diego Fire Department, explained the operation from the fire department's point of view.

"We decided to use the snorkel rather than the aerial ladder truck because of the better maneuverability of the snorkel as a water tower. You have to set up a nozzle and hose on the aerial ladder, where on the snorkel the water tower is permanent," said Capt. Garinger. "You just connect the hose at the base of the snorkel."

"We asked George Kempland to stop us if he thought we had too much pressure, doing more damage to the trees than good," said Capt. Garinger. "It worked out fine, each fireman got a chance to control the nozzle and move the snorkel basket around. This was good training and water served two purposes—training and maintaining trees."

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## Trimnings

**GASES**, combined in a mixture at low total concentrations may cause more plant damage than a single pollutant at a much higher concentration. Ohio State University researchers are studying this peculiar problem and another closely associated with it. In the second case, clues are being sought as to why pollutants make plants more susceptible to attack by insects and pathogens such as fungi and bacteria. Seems these seek out plants weakened by chronic pollution stress.

\* \* \*

**CONDEMNED ELMS** in Stockholm, Sweden, failed to fall on schedule. Ax-wielding workmen were repelled by tree lovers and needed a police escort in order to retreat. Most serious threat, however, was a series of anonymous calls threatening to chop down fruit trees in the backyards of councilmen if the elms were destroyed.

\* \* \*

**OZITE** known for the indoor-outdoor carpet craze has marketed a grasslike artificial turf. It's more carpet than turf and isn't meant to compete for the athletic field business. Company reps say that Lawn-scape (the new sale name) was created mostly for do-it-yourselfers on yards, balconies, basements, patios, around swimming pools and the like. The company, however, doesn't rule out its use in the commercial field.

\* \* \*

**RACEHORSE OWNERS** have complained that Saf-T-Turf at the Calder Race Course (Fla.) is making their horses sore. Heavy investor in the Calder set-up, William L. McKnight, is not about to cover the artificial surface with sand, or whatever. He instead hopes to sell the 3-M company's product as the race-track of the future. Top stables may reconsider competing at Calder this winter.

\* \* \*

**MORE FERTILIZER USE, NOT LESS**, is being promoted by Extension Professor R. Hunter Follett at Ohio State University. He says that greater use of fertilizers can reduce erosion and help prevent pollution. Instead of exposing more land to erosion and nutrient losses, Dr. Follett suggests increasing fertilizer use on better land where erosion hazards are low, and retiring more poor land to permanent cover.

## Highway Tree (from page 14)

surgery should be performed if the situation necessitates.

Where utility lines are located along highways, it may be necessary to prune and control the growth of trees on a more regular basis. Yet, when the coexistence of trees and utilities is feasible mutual benefits are frequently possible. Trees help to hide some of the unpleasant visual qualities of utility lines and poles. They also provide a wind screen and protection from the elements for the utility lines. And, because proper functioning of the utilities necessitates regular pruning of trees to prevent service interruption, diseased and dead wood is eliminated which could prove to be a danger to motorists.

Today our trees are faced with many man-made problems. Chemical applications applied to our highways and off-highway maintenance areas, such as salts used as deicing compounds, herbicides and soil sterilants, oils, and other toxic materials which either wash or blow off the highway onto plants and under the trees and grounds surrounding them cause their death.

In many cases it would be advantageous to remove these trees which would have a tendency to die or be killed by unnatural surroundings. Many areas of our country have not been blessed with enough rainfall for a period of several years, therefore these trees have been weakened and are susceptible to insect and disease attack. Healthy trees need care and a maintenance program that stimulates growth through the application of nutrients, preventive sprays where known insects and disease are prevalent and tree sanitation are greatly needed.

Consideration must also be given



Robert A. Bartlett, president of the F. A. Bartlett Tree Expert Company.

to the effects of air and water pollution upon highway trees. Trees, like most living things in the environment today suffer from pollution. The effects of pollutants on trees are numerous and the most serious symptoms are clearly evident in urban areas. The ultimate solution to this problem lies with the polluters and legislators, although research is now going on in several parts of the country to determine which particular species of trees are most tolerant to pollution. When this research is completed, we will be best able to determine what trees should be planted in areas of high pollution.

### Recommendations

#### 1. Initiate a Comprehensive Highway Tree Census and Continuing Tree Inventory.

A highway tree census should be started. This census should be repeated at least every ten years.

## Shocking!

We are dismayed at the d-CON ad in the July '71 issue of **Ladies Home Journal**, p. 146-147.

This ad by a reputable formulator shows a picture (taken by a National Audubon Society staffer) of 210 dead birds which are purported to have been killed by a "hard" pesticide.

There are no data to substantiate the claim. No data explain whether the birds were picked up along a highway or in a park, or whether there was an autopsy to indicate why they died. The so-called "hard" pesticide was not named.

Nor does d-Con mention that they market a rodenticide which would kill most anything.

We are shocked because this type of reporting is a disservice to the industry—an industry which is spending more money than ever before to monitor and research the effect of chemicals on the environment, including that on birds.