

Virginia sod producers organize. Virginia Cultivated Turfgrass Association was name chosen

by new organization at Middleburg, Va. Discussing Virginia's new sod law with group is Dennis E. Brown, Richmond, supervisor of state's Seed Regulatory Services, Department of Agriculture.

ment-some new and never before exhibited-were demonstrated.

Industry Association Activities At All-Time High

Virginia sod growers, like those nationwide, are working to improve their industry. In March, they formed the Virginia Cultivated Turfgrass Association with approximately 50 members. That state's new sod law includes a program for certifying and improving sod. Elected president of the group was George C. Calder, Clifton, Va. The group has been working closely with state sod associations in Maryland and New Jersey.

The American Association of Nurserymen reported 255 new memberships at the 92nd Annual Convention at Bal Harbour, Fla., during the summer. This brings total membership in the organization to 1555. Newsworthy note for the organization was the announcement that Robert F. Lederer, executive vice-president for the AAN, will serve in the same position with the National Landscape Nurserymen's Association. The umbrella management idea makes for common office services, with each group continuing with its own governing body, separate bylaws, and independent association goals.

Good news for the industry was agreement among highway officials to put landscaping under separate bids in highway construction. Because this has seldom been done, plant survival has been poor. Representatives of the American Association of State Highway Officials, American Association of Nurserymen, Associated Landscape Contractors of America, Highway Research Board, and Bureau of Public Roads met in Washington, D. C. during April and discussed this problem. They agreed that firms chosen to do landscape work should be qualified by prior experience and reputation. Even more important, the officials agreed that highway departments need to project their plant material needs 3 to 5 years in advance. Attempts will also be made to



Rogers blower is used to free fairways of refuse following thatching or aerating. On blower is Bob Hislop, summer employe at Cascade Hills Country Club, Grand Rapids, Mich.



New officers of the Golf Course Superintendents Association of America. From left to right: Walter Boysen, superintendent, Sequoyah Country Club, Oakland, Calif., president; Director Robert Mitchell of Sunset Country Club, St. Louis, Mo.; James Brandt, vice president, from Danville, Illinois Country Club; Keith Nisbet, director, from Westview Golf Club, Aurora, Ontario, Canada; and Herman Johnson, director, from Quail Creek Golf and Country Club, Oklahoma City, Okla. They stage the 1968 convention at San Francisco, Feb. 18-23.



John Gallagher, left, and James D. Gorman discuss aquatic weed problems during field demonstration of Hyacinth Control Society annual meeting. Gallagher is aquatic weed research specialist, Amchem Products, Inc., Ambler, Penna., and Gorman is director of the Hillsborough County mosquito control unit, Tampa, Fla.



Stull Chemical Company's Bifluid System as an aquatic weed control technique is being demonstrated at field session of Hyacinth Society meeting by Bob Burgdorff, sales representative of Stull, Houston, Tex. On the program Burgdorff related Stull's pioneer work with this new concept of vegetation control.

specify species adapted to the area where they will be used.

Aquatic Weed Problems Important Phase of Industry

Aquatic weed control programs became more complex during 1967. With greater segments of the nation's population using inland water, there has been a like increase in lake, canal and stream pollution. This in effect has fertilized these waters to the extent that they have become natural incubators for weed growth. Only recently has this been recognized.

Weeds reduce value of water

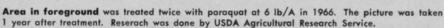
for recreational, commercial, and public use. This results in lowering the value of adjacent property and creates a demand to control the aquatic vegetation.

Best example of how fast noxious aquatic weeds can become a problem has been found in the Panama Canal. Within the last 5 years, Elodea and other varieties of submersed weeds have choked a number of areas. Speaking to 150 leading aquatic industry members at the 7th annual meeting of The Hyacinth Control Society at Ft. Myers, Fla., this summer, Julian S. Hearne, on the Canal staff, re-

ported that mechanical methods would no longer do the job. Extensive testing is underway with chemicals, a must to keep the Canal open.

Also new in eastern and southwestern U. S. is the plague of Eurasian watermilfoil. Now well established in the Chesapeake Bay area and along the west

Earl Ogle, Hercules, Inc., Wilmington, Del., demonstrated Hercules equipment for testing consistency of invert spray materials during field demonstration at Hyacinth Society's 7th annual meeting.









Ronald L. Harper, left, Philadelphia Electric Co., Philadelphia, Pa., and Hyland R. Johns, Asplundh Tree Expert Co., Jenkintown, Pa., co-chairmaned the 43rd ISTC Conference. They were on hand to welcome the 1000 attending the event. They are using Asplundh Chipper Company's L-30 fiberglas boom and bucket.

coast of Florida, it is dominating the water of several hundred thousand acres where it is growing.

International Shade Tree Conference Elects Parr

Members of the I.S.T.C. attending their 43rd conference at Philadelphia, Pa., this summer were happy with the current business boom. But they seemed concerned with the rising cost of doing business and the need to

keep service charges keyed to costs of operation.

Fitchburg Chipper demonstration was staged, right, by Ar-

borist Equipment Co.,

Philadelphia, Chipper

is built by Fitchburg Engineering Corp.,

Fitchburg, Mass.

A total of 795 registered for the session, with more than 1000 in attendance at some time during the program. They elected Freeman L. Parr, Parr and Hanson, Inc., Hicksville, N. Y., president for the coming year. Parr, who last year was vice-president, and normally would have moved into the president-elect position, was elected

Newly elected ISTC officers, President Elect Keith L. Davey, San Francisco, Calif., left, and President Freeman L. Parr, Hicksville, N.Y., center, visit with Executive Director Dr. L. C. Chadwick, Columbus, O., following board of governors session at ISTC Philadelphia meeting.





Pitman chipper built by Pitman Manufacturing Co., Grandview, Mo., features according to the maker, shallow cutting action, unique selfaligning cutting blade and emergency safety brake.



president by virtue of the resignation of the 1966 presidentelect, C. Elmer Lee, Southern California Edison Co., Los An-



Myers demonstrated new TT29 Tali Tree mist sprayer. Equipment according to Myers representative is designed especially for tree protection, mosquito control, leaf windrowing, brush burning and sanitation spraying.



John Bean's power spraying division exhibited the Model 100G Rotomist for shade tree, sanitation, msoquito control and leaf windrowing along with one of their truck mounted heavy duty sprayers. On Rotomist is A. O. Kalp, Middletown, N.Y.

Expert Inc., Hamden, Conn., 2nd vice-president; William A. Rae, Frost & Higgins, Arlington, Mass., secretary; and William P. Lanphear, Forest City Tree Protection Co., Cleveland, O., treasurer. Hyland R. Johns, Asplundh Tree Expert Co., Jenkintown, Pa., was named to the NAA board.

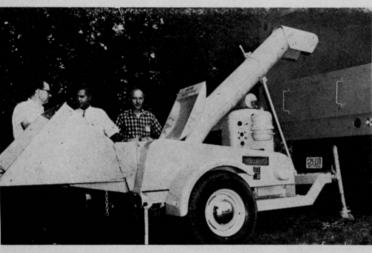
Awards presented by the I.S.T.C. included: Author's Citations, Dr. Spencer Davis, Rutgers University, N. Y., and Dr.

geles, Calif. Elected presidentelect was Keith L. Davey, president of Keith L. Davey Tree Surgery Co., Limited, San Francisco, Calif.

The National Arborists elected Kenneth P. Soergel, of Kenneth P. Soergel Arborists, Gibsonia, Pa., as president. He succeeded past president Harry A. Morrision, Wilmette, Ill. Edward C. Shearer, Farrens Tree Surgeons, Inc., Jacksonville, Fla., was named 1st vice-president; Paul R. Walgren, Jr., Walgren Tree

Asplundh chipper, built by Asplundh Chipper Co., Huntingdon Valley, Pa., was demonstrated here by Harold Gentile who during Conference served as chairman of trade exhibits.





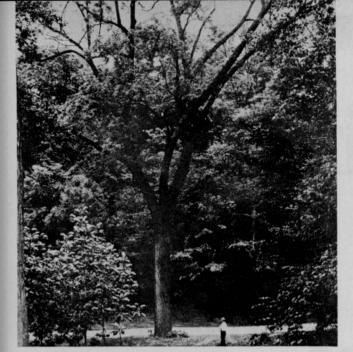
Mitts and Merrill chipper with swing-away feed chute and staggered knife pattern was demonstrated by representatives, Leon Baldwin, left, Suffern, N. Y., Gene Deas, center, Richmond, Va., and Jack Ramous, Saginaw, Mich.



Clarke W. Davis, left, executive-secretary of NAA, chats with newly elected president, Kenneth P. Soergel, Soergel Arborists, Gibsonia, Pa., center, and outgoing president, Harry A. Morrison, Wilmette, III.

Curtis May, USDA, both for sustained publishing of research in shade tree and ornamental plant pathology; Awards of Merit, Mrs. L. B. Johnson, Washington, D. C., for initiative, leadership and influence in developing the National Beautification Program, and to the Honorable Harold E. Hughes, governor of Iowa, for leadership of the Elm Research Institute; Honorary life memberships, Max Watson, San Jose, Calif., E. A. Sanford. Freeport, O., and R. J. Campana, Orono, Me.; Past president's plaque was awarded outgoing President R. J. Campana; and a special award made "only every 30 years" according to Dr. Campana, who made a presentation to Dr. and Mrs. L. C. Chadwick "in grateful appreciation for 30 years of dedicated service to I.S.T.C., 1937-1967"; tree identification contest, Herman Porter, Bartlett Tree Expert Co., N. J.

The NAA awarded honorary memberships to Paul Tilford, Wooster, O., and to Russell Whitten, Delaware, O.



This black walnut tree is one of the best known trees in Ohio and is located in Walnut Hollow of the Secrest Arboretum. Estimated age is 175 years and bids by contractors as a timber tree have ranged up to \$1500, though the tree is not for sale. It will remain a forest giant for posterity.

||| want to know more about aquatic weed control . . . ? |||

. . . then our Applicator's Manual of Aquatic Weed Control offers you just the material you need.

. . . in 16 pages, entirely concerned with the practical aspects of aquatic weed work, Applicator's Manual of Aquatic Weed Control details growth habits and ecology of aquatic species;

. . . thoroughly discusses chemicals used in aquatic weed work;

... and concludes with explanations on equipment used to perform control measures. The final pages also include an extensive bibliography.

. . . if you've been contemplating expanding into aquatics and need some solid down-to-earth information . . . Applicator's Manual of Aquatic Weed Control will give you a firm grasp of this complex and stimulating phase of the industry.

... there's no substitute for this handy "hip-pocket" manual of aquatic weed fundamentals. Order your copy today . . . better yet . . . order one for each member of your organization.



PRICES: 1-10, \$1.00 each; 11-25, 90ϕ each; 26-50, 80ϕ each; 51-250, 75ϕ each; 251-500, 60ϕ each; 501 and over, 50ϕ each; postage prepaid in the United States only. Supply is limited.

ORDER NOW!

Shade Tree Evaluation Project at Wooster, O.

A 10-year street tree evaluation program is underway at the Ohio Research and Development Center, Wooster, O.

Purpose of the program, sponsored by Ohio utility companies, is to spot trees which can fit the needs of city streets and at the same time adapt to the growing conditions with which such trees are faced.

First planting was made during the 1966-67 season with 30 maple cultivars. Data will be kept on IBM cards for each numbered tree. During the first year, survival, amount of die-back, initial caliper and height, and soil data are collected. In succeeding years, growth rate, hardiness, leaves, and branch development will be checked. Further, some trees will be removed and the entire root system checked. Additional plantings will be made of many types of trees, according to Dr. O. D. Diller, curator of Secrest Arboretum, a 115-acre development at the Research Center. Dr. Diller formerly served as chairman of the Center's forestry department.

Utility companies who are paying for the study are interested in plantings under lines which require a minimum of maintenance. Each has assigned

(Continued on page 53)



Dr. O. D. Diller examines trunk of veteran black walnut tree, shown above. Dr. Diller is curator of Secrest Arboretum, which features some 1400 varieties of ornamental and timber trees on 115 acres. Aboretum was established in 1908.

Rutgers Schedules Winter Turf Courses

Rutgers State University has scheduled their annual Turf Winter Course of 20 weeks in two sections. The first begins Jan. 3 and will be completed Mar. 8. The second begins Jan. 6 and closes Mar. 14.

Two 3-day Turf Courses have also been set for January. The Lawn, Athletic Field and Utility Turf Course will be held Jan. 15-17. A second 3-day event, the Golf and Fine Turf Course, is scheduled for Jan. 17-19, according to Ralph E. Engle, research professor of Turfgrass Management.

Name the size of your job, the size of your budget!

International can custom-fit a mower/tractor team for you from 108 combinations

How *much* of your mowing and equipment budget can you save? Here's where International shines. With 108 mower/tractor combinations, we can custom-fit tractor power and mower size to your job and your budget. This is the surest way to reduce your purchase and operating costs. Check with your International dealer. He might come up with some combination you haven't thought about—to cut initial cost, labor and fuel dollars. He has "pay as you mow" finance plans for mowing tractors from 7 to 75 hp . . . and mowers like these . . . for 36-inch to over 20-foot-wide swathing:

Tops for safety—70 flail mower. Won't throw cans, sticks, stones. Knife action sends objects straight down to ground. Extra protection with heavy rubber safety curtain. Tiny cuttings sift down into cut grass. No windrows or smothered grass. 5- and 7-foot models.

Special duty reel mowers. Finish cut for putting-green smoothness. Available in several ganged arrangements.

All-purpose rotary mowers. Versatility to take on fine grass, weeds, even thick brush. Eight models—38 to 94-inch cutting widths. And check the powerful rotary cutters. Cleave through trees up to 5 inches thick. Shred saplings, brush, heavy growth anywhere you want to go. 60 to 84-inch cutting widths.

Balanced-head cutter bar mower. Light and heavy-duty mowing of weeds, high grass, brush. No bunching or tearing on steep banks, mild slopes or on the level.

INDUSTRIAL EQUIPMENT

Wheel and crawler tractors · loaders · backhoes dozers · forklifts · mowers · special duty tools





International Lo-Boy® tractor and rotary mower





International Cub Cadet® with 5-gang reel mower



International 2656 tractor with 110 cutter bar mower



WEEDS TREES AND TURF

1968 SUPPLIERS GUIDE

Weeds Trees and Turf presents below its annual Guide to Suppliers of vegetation control chemicals and equipment for use in urban/industrial areas. There is a mixture of common and registered trade names, unavoidable since usage and recommendations of researchers refer to a particular chemical by one or the other, depending upon the newness of the compound, whether its common name is easier to use, or industry acceptance. There will also be some differences of opinion over the inclusion or omission of certain chemicals under particular use categories. Here again confusion exists among reference sources. We have made our choices on the basis of most frequent mention in our surveys which preceded this compilation. Readers' comments and suggestions are invited to help us improve future editions. Keep this year's Guide handy for frequent use.

Advertisers in this issue of Weeds Trees and Turf are listed in boldface type.

HERBICIDES

SOIL STERILANTS

AMIZINE

Amchem Products, Inc. Nalco Chemical Co.

AMMONIUM SULFATE

The J. J. Dill Co. Summers Fertilizers, Inc.

ATRATOL

Geigy Agricultural Chemicals

ATRAZINE

The J. J. Dill Co. Geigy Agricultural Chemicals Great Lakes Chemical Div. Nalco Chemical Co.

BORATE COMPOUNDS

American Potash & Chemical Corp. Chipman Chemical Co., Inc.
The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Nalco Chemical Co.
U.S. Borax & Chemical Corp.

BORATE MIXTURES

Chipman Chemical Co., Inc. The J. J. Dill Co. Green Lawn Laboratories, Inc. Nalco Chemical Co. U.S. Borax & Chemical Corp.

BO-RID

The R. H. Bogle Co.

BROMACIL (HYVAR X)

The J. J. Dill Co. E. I. duPont de Nemours & Co., Inc. Nalco Chemical Co.

CALCIUM CHLORIDE

Pittsburgh Plate Glass Co.

CHLOREA

Chipman Chemical Co., Inc. The J. J. Dill Co. Green Lawn Laboratories, Inc.

DALAPON

The J. J. Dill Co. The Dow Chemical Co. Nalco Chemical Co.

DIURON

The J. J. Dill Co. E. I. duPont de Nemours & Co., Inc. Nalco Chemical Co.

D-LETE

The J. J. Dill Co.

ERBON

The Dow Chemical Co. Nalco Chemical Co.

FENAC

Amchem Products, Inc. Nalco Chemical Co.

FENATROL

Amchem Products, Inc.

HCA

Allied Chemical Corp.

HIBOR

U.S. Borax & Chemical Corp.

MBC

Hooker Chemical Corp.

MONOBOR-CHLORATE

Green Lawn Laboratories, Inc. U.S. Borax & Chemical Corp.

MONURON

The J. J. Dill Co. E. I. duPont de Nemours & Co., Inc. Green Lawn Laboratories, Inc. Nalco Chemical Co.

PBA

Nalco Chemical Co.

PRAMITOL

The J. J. Dill Co. Geigy Agricultural Chemicals Great Lakes Chemical Div. Nalco Chemical Co.

SIMAZINE

The J. J. Dill Co. Geigy Agricultural Chemicals Great Lakes Chemical Div. Nalco Chemical Co.

SODIUM ARSENITE

Allied Chemical Corp.
R. H. Bogle Co.
Chevron Chemical Co., Ortho Div.
Chipman Chemical Co., Inc.
The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Miller Chemical & Fertilizer Corp.
Niagara Chemical Div., FMC Corp.
Pennsalt Chemicals Corp.
B. G. Prott Co.

SODIUM CHLORATE

Chipman Chemical Co., Inc.
The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Hooker Chemical Co.
Nalco Chemical Co.
Pennsalt Chemicals Corp.

TBA

Nalco Chemical Co.

TCA

Allied Chemical Corp. Amchem Products, Inc. **The J. J. Dill Co.** The Dow Chemical Co. Nalco Chemical Co. Robeco Chemicals, Inc.

TRITAC

Great Lakes Chemical Div. Hooker Chemical Co.

TRITAC-D

Great Lakes Chemical Div. Hooker Chemical Co.

URAB

Allied Chemical Corp.

UREABOR

Green Lawn Laboratories, Inc. U.S. Borax & Chemical Corp.

UROX

Allied Chemical Corp. Green Lawn Laboratories, Inc.

VACATE

Diamond Alkali Co.

VAPAM

Stauffer Chemical Co.

WEED OUT

Fence Painter Corp.

PREEMERGENCE

ALANAP

Thompson-Hayward Chemical Co. Uniroyal Chemical, Div. of Uniroyal, Inc.

ALANAP PLUS

Uniroyal Chemical, Div. of Uniroyal, Inc.

AMIBEN

Amchem Products, Inc.

AZAK

Hercules Incorporated Summers Fertilizers, Inc.

BALAN

Elanco Products Co.

BANDANE

The J. J. Dill Co. Green Lawn Laboratories, Inc. Velsicol Chemical Corp.

BENEFIN

Elanco Products Co.

BETTER SPRAY APPLICATION WITH STULL

NEW ECONOMY-NEW EFFICIENCY-NEW SAFETY WITH

BIVERT AMX

(Ammate X Application Adjuvant)

BIVERT DPN

(Dalapon Application Adjuvant)

BIVERT MSMA

(Monosodium Acid Methanearsonate Application Adjuvant)

GIVES YOU ALL THIS ...

- Reduced Evaporation Losses
- · Reduced Run-Off Waste
- · Reduced Spray Drift
- Reduced Application Labor
- Reduced Equipment Corrosion
- · Reduced Rain Washoff
- · Increase in Foliage and Stem Penetration
- Increase in Droplet Spreading Characteristics
- Increase in Droplet Size Uniformity
- · Increase in Spray Unit Capability

Contact Stull Today For Full Information:

STULL CHEMICAL COMPANY

P. O. Box 6386 - San Antonio, Texas



BETASAN

The J. J. Dill Co. Stauffer Chemical Co.

CALCIUM PROPYL ARSENATE

Green Lawn Laboratories, Inc. Vineland Chemical Co.

CASORON

Great Lakes Chemical Div. Thompson-Hayward Chemical Co.

CHLORDANE

Armour Agricultural Chemical Co. Chipman Chemical Co., Inc.
The J. J. Dill Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
S. B. Penick & Co.
Thompson-Hayward Chemical Co.
Velsicol Chemical Corp.

CIPC

Pittsburgh Plate Glass Co. Thompson-Hayward Chemical Co.

DACTHAL

Armour Agricultural Chemical Co. Diamond Alkali Co. The J. J. Dill Co. Great Lakes Chemical Div. Thompson-Hayward Chemical Co.

DIPHENAMID

Elanco Products Co. TUCO Products Co.

DNBP

The Dow Chemical Co. Niagara Chemical Div., FMC Corp.

DYNAP

Uniroyal Chemical, Div. of Uniroyal, Inc.

DYMID

Elanco Products Co.

ENDOTHAL

The J. J. Dill Co. Pennsalt Chemicals Corp.

EPTAM

The J. J. Dill Co. Stauffer Chemical Co. Thompson-Hayward Chemical Co.

HERBAN

Hercules Incorporated Summers Fertilizers, Inc. Thompson-Hayward Chemical Co.

HERBISAN

Roberts Chemicals, Inc.

IPC

Chipman Chemical Co., Inc. Pittsburgh Plate Glass Co.

LEAD ARSENATE

Allied Chemical Corp.
Chevron Chemical Co., Ortho Div.
Chipman Chemical Co., Inc.
The J. J. Dill Co.
Green Laboratories, Inc.
Niagara Chemical Div., FMC Corp.
Summers Fertilizers, Inc.

SPRAY IT

Specify PRATT products to give your trees the level of pest-proofing protection and horticultural health that their value warrants. Arborists and custom spraymen — the professionals who have to be certain of the right results — depend on the complete, premium quality line of safe and sure PRATT dormant and summer oils, emulsifiable concentrates for hydraulic and mist blowers, and oil base concentrates for thermal fog equipment. Send for the circular that tells you why—and how: "PRATT'S SHADE TREE SPRAY BULLETIN." It's free.

Distributors of Bidrin®, a product of Shell Chemical Company.



B. G. PRATT COMPANY

P.O. Box 2138 / Paterson, N.J. 07509 Phone 201 684-4797

LINURON

The J. J. Dill Co. E. I. duPont de Nemours & Co., Inc.

PRE-SAN

Mallinckrodt Chemical Works

PYRAMIN 80-W

Amchem Products, Inc.

SESONE

Amchem Products, Inc.

SIMAZINE

(See Soil Sterilants)

SOLAN

Niagara Chemical Div., FMC Corp.

TRICALCIUM ARSENATE

Chipman Chemical Co., Inc.
The J. J. Dill Co.
Niagara Chemical Div., FMC Corp.
Pennsalt Chemicals Corp.
The Sherman-Williams Co.

TRIFLURALIN (TREFLAN)

Elanco Products Co.

TUPERSAN (SIDURON)

Amchem Products, Inc. Armour Agricultural Chemical Co. The J. J. Dill Co. E. I. duPont de Nemours & Co., Inc. Summers Fertilizers, Inc.

POSTEMERGENCE

AMITROLE-T

Amchem Products, Inc. American Cyanamid Co. **The J. J. Dill Co.** Great Lakes Chemical Div. Nalco Chemical Co.

AMMONIUM METHYL ARSONATE

W. A. Cleary Corp.

The J. J. Dill Co.

Green Lawn Laboratories, Inc.

Nalco Chemical Co.

AMMONIUM METHYL ARSONATE PLUS 2,4-D

W. A. Cleary Corp.

AMMONIUM SULFAMATE

The J. J. Dill Co. E. I. duPont de Nemours & Co., Inc. Nalco Chemical Co.

ARSENIC ACID

Chevron Chemical Co., Ortho Div. Chipman Chemical Co., Inc. Niagara Chemical Div., FMC Corp. The Sherwin-Williams Co.

ATRAZINE

(See Soil Sterilants)

BANVEL-D (DICAMBA)

The J. J. Dill Co. Velsicol Chemical Corp.

BETASAN

The J. J. Dill Co.

BORATE COMPOUNDS

(See Soil Sterilants)

BROMACIL

(See Soil Sterilants)