



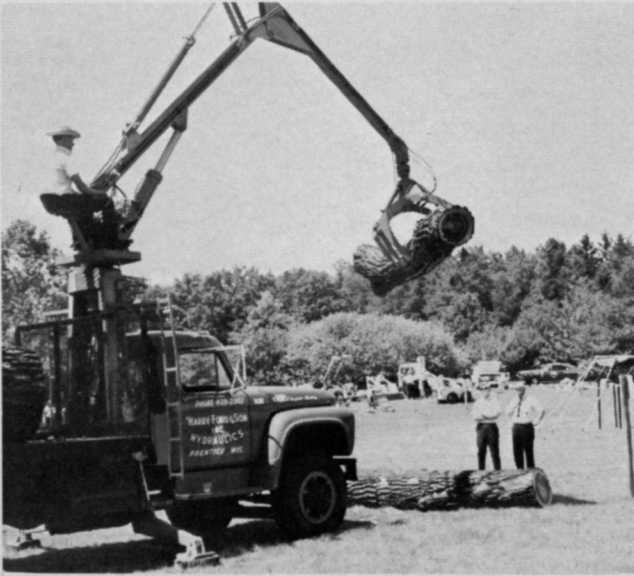
International 2444 tractor with 70 flail mower

International Cub Cadet® with 5-gang reel mower

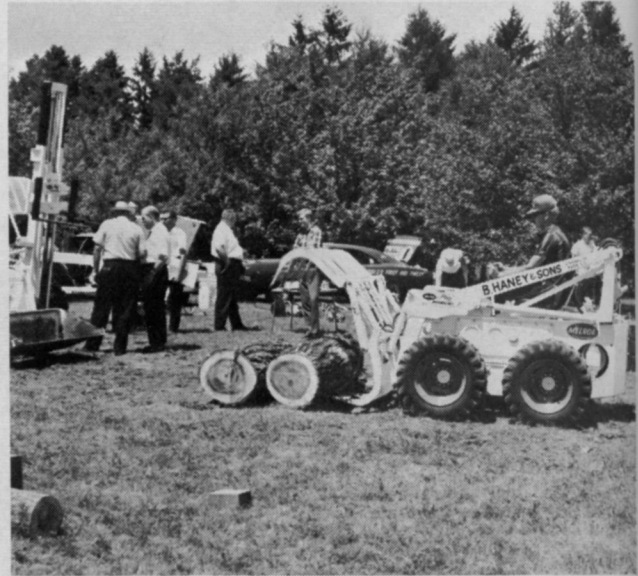


International 2656 tractor with 110 cutter bar mower





Log handling equipment was demonstrated by Omark Prentice Hydraulics, Inc., Prentice, Wis.



Melroe Bobcat for heavy tree work was operated for ISTC'ers by B. Haney & Sons, Franklin Park, Ill.



Chain saw exhibition above was sponsored by Pioneer Chain Saws Division, Gale Products, Galesburg, Ill.

open hose is then used for filling the saucer and refilled again each week throughout the summer. During original planting, rigid tamping of soil is done by experienced men.

Van Wormer continued by emphasizing that since the backfill consists of strata of soil, water does not penetrate too rapidly to the extreme base of the ball roots. At this level the root should callus partially, he said.

Also, according to Van Wormer, all newly planted large trees

need to be liquid fed under pressure. This needs to be applied directly to the ball twice, at 30-day intervals. This automatically gives the tree the many trace elements needed for quick root recovery. Within 30 days, he said, the tree should be expanding dormant leaf buds in the nodes above or below the existing leaf structure.

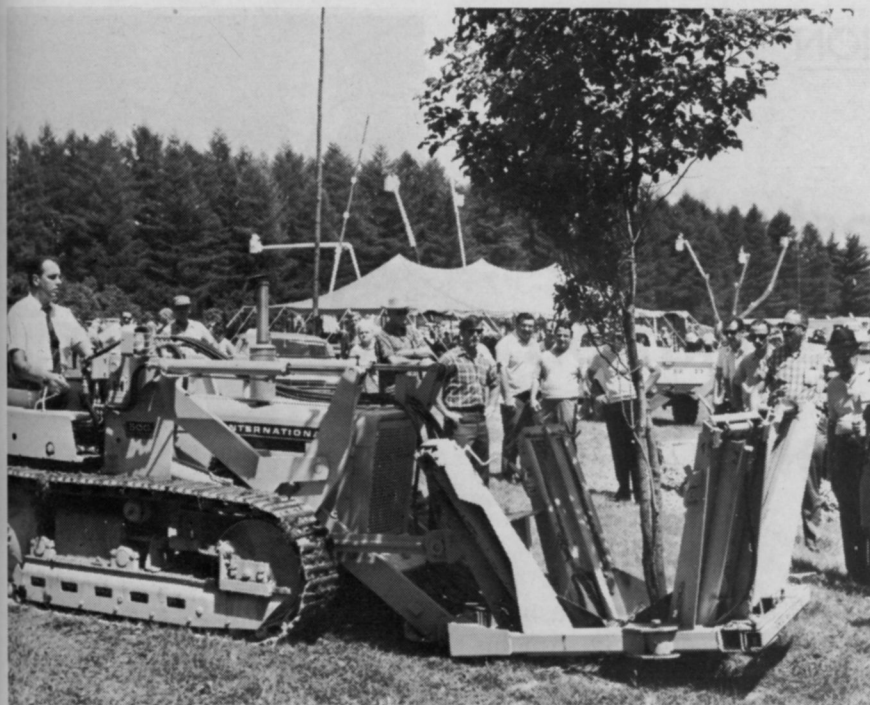
Awards made at the ISTC at the Thursday night annual banquet are as follows: Honorary Membership, Dr. Malcom Mc-

Asplundh Equipment Co., Jenkintown, Pa., and Asplundh Chipper Co., Chalfont, Pa., combined forces in exhibiting chipper and boom and truck unit.



Fitchburg chipper was kept in action at Morton Arboretum by Wright Tree Service.





Vermeer Manufacturing Co., Pella, Ia., demonstrated complete line of products designed for tree care companies. Above is Vermeer's new automatic tree spade.

Kenzie, Amherst, Mass.; Honorary Life Membership, Dr. A. C. Hildreth, Denver, Colo., Russell R. Whitten, Worthington, O., Horace Bosworth, Sacramento, Calif., Freeman L. Parr, Hicksville, N. Y.; Award of Merit, Dr. Spencer H. Davis, Jr., New Brunswick, N. J., F. Earle Martin, Toronto, Ont., Can., S. Elmer Lee, Los Angeles, Calif.; Authors

Citation, Dr. Paul E. Tilford, Wooster, O., Dr. Ray R. Hirt, Syracuse, N. Y., H. Gleason Mattoon, Yarmouth Port, Mass., Brian O. Mulligan, Seattle, Wash., Dr. L. C. Chadwick, Columbus, O., Noel B. Wysong, Golconda, Ill.; and Special Awards, Dr. and Mrs. L. C. Chadwick, Columbus, O., B. G. Pratt, Jr., Patterson, N. J.

Davey Tree Expert Co., Kent, O., exhibited the new Davey tree digger. Machine trenches circle completely around tree for standard moving process.



## Meeting Dates



**Western Street Tree Symposium, 11th Annual**, University of California, Santa Cruz, Calif., Sept. 11.

**Spray-O-Rama '68, 7th Annual Conference**, Pacific N.W. Spraymen's Association, Portland, Ore., Sept. 13-14.

**Northwest Turfgrass Conference**, Washington State University and Northwest Turfgrass Association, Alderbrook Inn, Union, Wash., Sept. 25-27.

**Midwest Turf Fall Field Day**, Midwest Regional Turf Foundation and Purdue University, Purdue Agronomy Farm and Experimental Green, Lafayette, Ind., Sept. 30.

**Turf Conference**, New York State Federation of Golf Course Superintendents, Nevele Country Club, Ellenville, N. Y., October 8-9.

**Turfgrass Management Conference**, Florida Turfgrass Association, Ramada Inn, Gainesville, Fla., Oct. 8-10.

**Southern California Equipment and Materials Educational Exposition**, City Park, Lynwood, Calif., Oct. 16-17.

**Central Plains Turfgrass Conference**, Central Plains Turfgrass Association, USGA Green Section and Kansas State Univ., K-State Campus, Manhattan, Kan., Oct. 16-18.

**Industrial Weed Control Conference, 3rd Annual**, Texas A&M University, Memorial Student Center, College Station, Tex., Oct. 20-22.

**American Society of Agronomy, 1968 Annual National Meeting**, Jung and Roosevelt Hotels, New Orleans, La., Nov. 10-15.

**National Aerial Applicators Association, Annual Meeting**, Dunes Hotel, Las Vegas, Nev., Dec. 1-4.

**Illinois Turfgrass Conference**, Illinois Turfgrass Foundation, Inc., Building Auditorium, University of Illinois, Urbana, Ill., Dec. 5-6.

**40th International Turfgrass Conference and Show**, Golf Course Superintendents Association of America, Fountainebleau Hotel, Miami Beach, Fla., Jan. 19-24.

**American Sod Producers Association Annual Meeting**, Fountainebleau Hotel, Miami Beach, Fla., Jan. 22.

**Weed Science Society of America Annual Meeting**, Caesars Palace, Las Vegas, Nev., Feb. 10-14.

# St. Louis Hosted American Association of Nurserymen

The 1500 nurserymen and their families attending this year's American Association of Nurserymen's convention in St. Louis, July 13-17, were treated to a well-balanced program of business and pleasure.

For the first time in its 93-year history, the AAN has gone beyond the 1600 mark in membership. Matching this growth in membership is a growth in the association's influence on the American scene. AAN President J. E. (Ted) Korves, president of Plumfield Nurseries, Inc., Fremont, Neb., stressed in his address before the board of governors that all nurserymen support the AAN and begin to consider themselves as national businessmen with a new, important role.

In reviewing the association's 1967-8 achievements, Mr. Korves reported that the Horticultural Research Institute, the group's own industry-oriented program, is aiding nursery retailers through its research on what people really think of nurserymen, their products and landscaping in general. He also discussed the proposal presently before the HRI concerning "demographic studies," which — if adopted — will enable retailers to answer questions such as who and where customers are, what they're interested in, how their interests are changing and

whether the retailer's business is changing accordingly. Among this year's AAN publications, Mr. Korves cited a 12-page booklet entitled "Landscape Beauty Depends on People" as being particularly effective in promoting the use of the nurseryman's products to the public.

A highlight of the convention was the naming of William Flemer, Jr., president of Princeton Nurseries, Inc., N. J., as the 1968 recipient of the Nurserymen's Hall of Fame award. Mr. Flemer's long list of activities in the horticultural field includes having been: a founder of the New Jersey Nurserymen's Assn.; president of the Ornamental Growers Assn.; president of the AAN (the youngest ever) in 1928; and a founder of the Eastern Nurserymen's Assn., incorporated in 1923 to help nurseries in the eastern Atlantic states survive certain severe U. S. Dept. of Agriculture Quarantine Board regulations. During World War II he was appointed to a special committee — along with Missouri's Governor Lloyd C. Stark, last year's Hall of Fame recipient — to work with the War Department in army camouflage activities. Currently he is responsible for the development and expansion of his business, one of the largest in the East.

Presented with the AAN's Norman Jay Colman Award

for outstanding contribution to horticultural progress through his research was Henry T. Skinner, director of the U. S. National Arboretum in Washington, D. C. Born in East Sutton, England, he came to this country in 1927. He earned his B.S. and M.S. degrees at Cornell University, his Ph.D from the University of Pennsylvania. He was president of the American Assn. of Botanic Gardens and Arboreta and is a member of such organizations as the International Society of Horticultural Science, Botanical Society of America, and the American Society of Horticultural Science. He was also a member of the White House Conference on Natural Beauty. To date, Mr. Skinner has published no fewer than 83 scientific papers and articles.

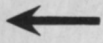
Art Kozelka, 1968 recipient of the AAN's Garden Writer's Award, has been garden editor of the Chicago Tribune since 1953. He writes a daily home garden column for the Trib and "This Week in the Garden" for the Sunday edition. Having had a lifelong interest in gardening, especially that pertaining to roses (he has 300 of them in his home garden), he majored in botany and agricultural journalism at the University of Nebraska. His interest in combining

*(Continued on page 38)*





Receiving their AAN Retail Advertising Awards are, from the left: (front row) Lloyd Marshall, Marshall Nurseries, Arlington, Neb.; Alfred H. Hicks, Hicks Nurseries, Inc., Westbury, L. I., N. Y.; Henry H. Chase, Jr., Chase Nursery Company, Chase, Ala.; Itsuo Uenaka, Cupertino Nursery, Cupertino, Calif.; Clarence Seefert, Seefert's Hudson Road Nursery, St. Paul, Minn.; (back row) Edmond G. Greene, Greene Nursery & Landscape Co., Memphis, Tenn.; Merten Natorp, the Wm. A. Natorp Co., Cincinnati, Ohio; James W. Hosking, James S. Hosking Nursery, Watertown, Conn.; John D. Siebenthaler, The Siebenthaler Co., Dayton, Ohio; and Louis Hillenmeyer, Jr., Hillenmeyer Nurseries, Lexington, Ky.



William Flemer, Jr., (left) president of Princeton Nurseries, Princeton, N. J., receives this year's Nurserymen's Hall of Fame testimonial — the highest honor any nurseryman can receive — from President Korves during the Past President's Banquet.



Chicago Trib garden editor Art Kozelka (left) receives 1968 Garden Writer's Award from AAN President Korves.

1968-69 AAN Board of Directors are, from the left: (front row) Harold R. Nickel, Treasurer and Director, Region V, Greenleaf Nursery Co., Muskogee, Okla.; Hoskins A. Shadow, President, Tennessee Valley Nursery, Inc., Winchester, Tenn.; William Flemer, III, Vice President and Director, Region I, Princeton Nurseries, Princeton, N. J.; J. E. (Ted) Korves, Director at Large, Plumfield Nurseries, Inc., Fremont, Neb.; (back row) Kenneth Altorfer, Director, Region III, McKay Nursery Co., Waterloo, Wisc.; Joseph H. Klupenger, Director, Region VI, Klupenger's Nursery & Greenhouses, Inc., Aurora, Ore.; Louis Hillenmeyer, Jr., Director, Region II, Hillenmeyer Nurseries, Lexington, Ky.; and Harold S. Crawford, Director, Region IV, Willis Nursery Co., Ottawa, Kans. Not shown is Allied Associate Director John H. Powell, Economy Label Sales Co., Inc., Daytona Beach, Fla.



Henry T. Skinner, director of the U.S. National Arboretum, is shown with Norman Jay Colman Award presented to him by the AAN for his outstanding contribution to horticultural progress through research.

## Grass Identification Is Key to Proper Care

Correct identification of your grass is the first important step toward controlling or encouraging its growth, says University of Maryland turf specialist, Elwyn E. Deal. Using the wrong method will not give you desirable results and may even injure your turf.

To help you determine the type of grass you have, Deal has provided the following list of characteristics of some of the most commonly-used grasses:

**Annual bluegrass** (*Poa annua*)—shallow-rooted, easy-to-pull-up, relatively small plants; light green with few to abundant seed heads that are pale green to white with a prominent ligule (white membrane-like growth at base of blade next to main shoot). Germinates in fall and early spring; dies during the first hot, dry spell in late spring.

**Kentucky bluegrass**—opposite of most *Poa annua* characteristics, including a permanent turf with only occasional seed heads that are dark green. Rhizomes (underground creeping stems) emerge from the soil a few inches from the mother plant and produce new plants.

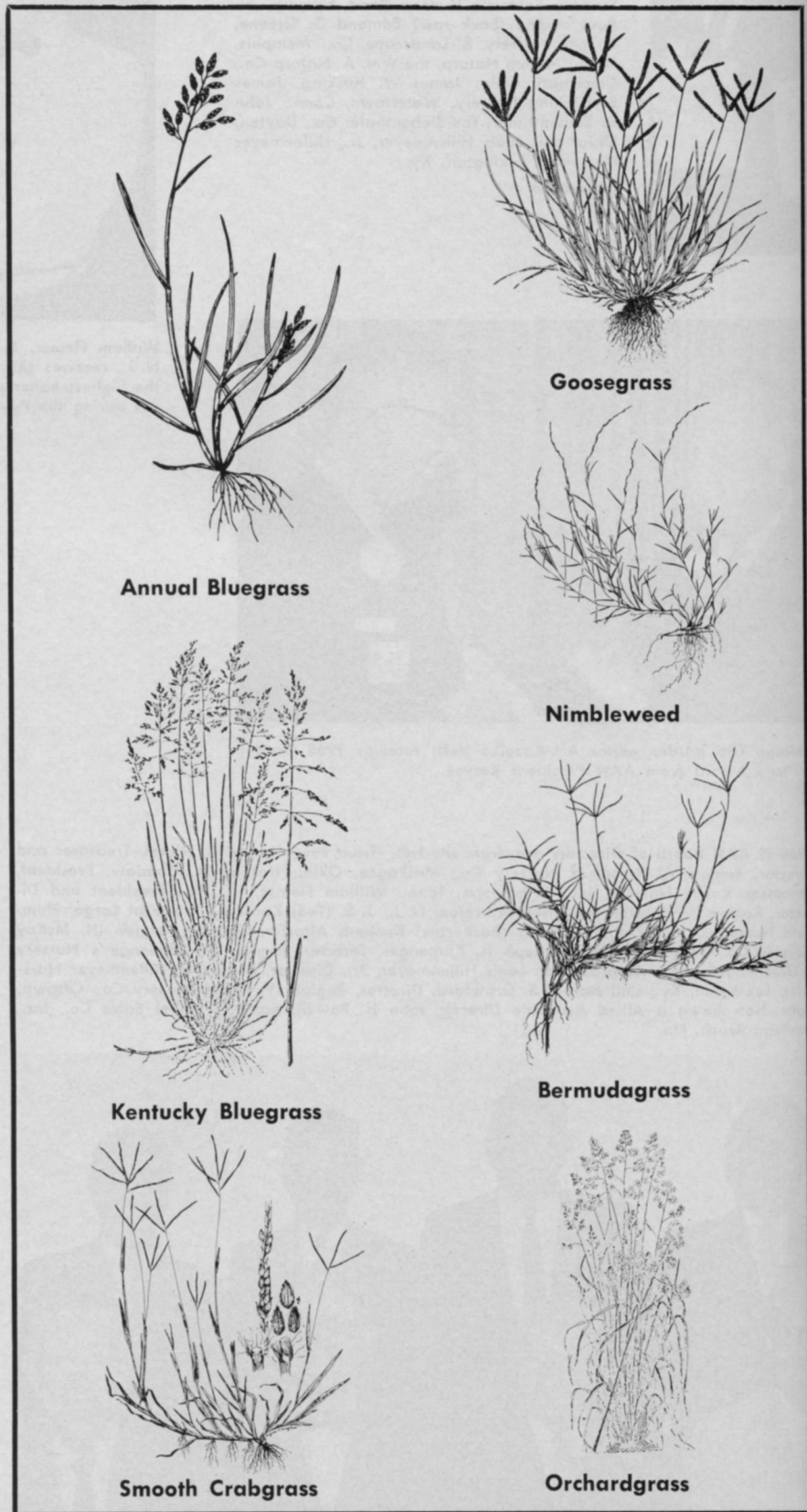
**Crabgrass**—germinates in mid to late spring (grows only from seed) and dies every fall with first heavy frost. Usually light green plants with shallow roots; found in thin, low-cut turf areas. Main root system easy to find; a few "runners" may develop. Its wide, flat leaves seem papery compared to many turfgrasses. Plants usually produce a loose, open turf.

**Tall Fescue, orchardgrass, and timothy**—deep rooted and hard to pull up, grow in clumps, live the year 'round. Few or no creeping stems; long, broad leaves that tend to lie down near the ground and are hard to mow with a reel-type mower.

**Bermudagrass** (wiregrass) — turns brown with first heavy frost but comes back the next

spring from the same plants. Long creeping stems above ground (stolons) and below ground (rhizomes) can be several inches to feet long and produce new plants. Main root sys-

tem cannot be found; plants hard to pull up. New shoots emerge in April and grow rapidly throughout summer. On the seed head, all branches originate from the top of the seed stalk, whereas



in crabgrass they may originate from several places along the seed stalk.

**Bentgrass and nimbleweed** — occasionally confused with crabgrass but don't turn brown with frost. Grow luxuriously in spring and fall but may turn off-color in summer. Patches usually solid and uniform in texture; leaves small compared to many other grasses. Some types with stolons; thatch usually abundant in bentgrasses.

Several annual grasses (goosegrass, foxtail, witchgrass, etc.) are similar to crabgrass in both appearance and control measures; therefore, even if mistaken for crabgrass, no harm is done, according to Deal.

If you are not sure of the type of grass with which you are working, call on your Extension Agent or other knowledgeable persons in your area to correctly identify it for you, Deal suggests. It could save you a lot of time, money and work.

## **MSU's Rieke Provides Lawn Establishment Tips**

Whether seeding or sodding a lawn, according to Dr. Paul Rieke, Michigan State University soil scientist, preparing the proper seedbed is critical.

If soil conditions are too sandy or high in clay, topsoil might be worked into the soil to improve its physical properties, says Rieke.

Fine textured soil requires surface drainage, which can be achieved by sloping the turf site, says Rieke. He cites the example of football fields, which are often 18 inches higher in the center than at the sidelines to help reduce problems of a soggy turf.

With soil structure in good shape, fertilizing comes next. Rieke recommends, as a good rule of thumb, application of

5-20-20 fertilizer at the rate of 10 to 20 lbs. per 1000 sq. ft. for seeded turf; 20 to 40 lbs. for sodded turf.

If the soil is acid (below a pH of 5.5), lime may be required.

Next, smooth the soil surface and complete the contour. Apply seed and rake it lightly so that the seed is not buried. Then roll or firm the soil to insure maximum germination by providing good contact between seed and soil.

Also vital to good seedbed establishment is mulching, adds Rieke. MSU studies show that straw, excelsior and processed wood chips work best. Mulches help keep soil moisture and temperature at more optimum levels and discourage competition from weeds. They also help keep soil moist during both cool and hot weather, he says.

"A good practice is to check the soil daily, at noon, and to water then to keep the soil moist," Rieke concludes.

## **Modifying Tractors Can Cause Problems**

Before deciding to modify a diesel tractor, effects on tractor life and maintenance costs need to be considered, cautions Thomas H. Williams, extension engineer at the University of Delaware.

Overfueling, perhaps the most popular method of squeezing more power from a diesel, is fast, easy, and cheap . . . but is extremely hard on engines.

Oil contamination caused by excess fuel washes off cylinder walls causing scuffed pistons, carbon buildup in the oil and fouled seals. Excess heat from burning more fuel leads to higher valve temperatures and shorter engine life.

Overfueling also causes injector and injection pump failures to rise sharply and may increase

combustion pressure to the point where head gasket leakage and bearing and crankshaft failure become a chronic problem, Williams points out.

Undue strain on the transmission and final drive caused by extra power may shorten gear, bearing and shaft life.

Overfueling by no more than 10% is enough to bring on these problems, according to Williams; at a 20% power increase, they become critical.

## **Grass Is Best Organic Soil Conditioner**

Elwyn E. Deal, University of Maryland turf specialist, reports on benefits vs. cost of using organic materials as soil conditioners.

Organic materials benefit turf by increasing both water- and nutrient-holding capacities, improving soil composition and adding nutrients.

However, adding organics to large areas is not feasible, says Deal. An acre of soil 6 $\frac{2}{3}$  ins. deep weighs about 2 million pounds; to increase its organic content 1% would require 10 tons (oven dry weight) of organic material. Costs can run high for purchasing, shipping and incorporating the material.

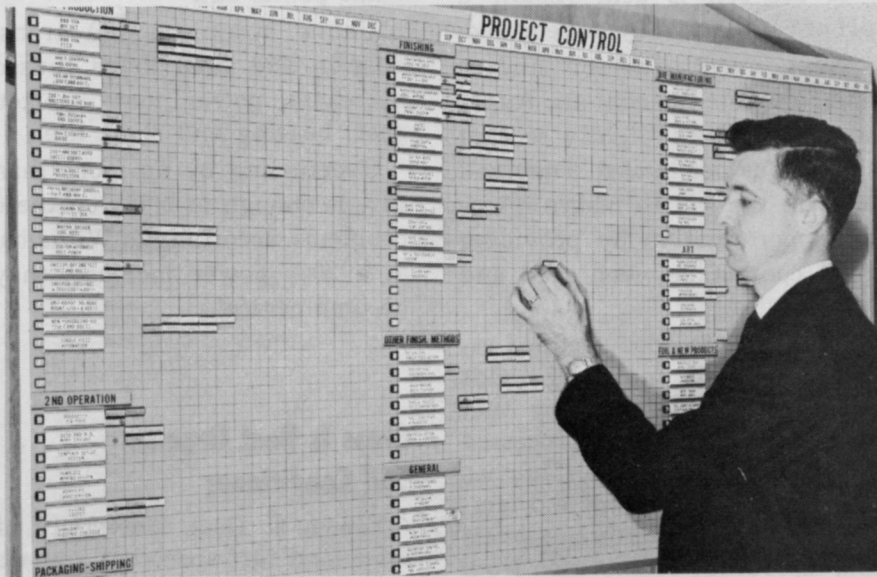
Established grasses, according to Deal, are the best soil conditioners. Their roots decompose rapidly and add large amounts of organic matter to the root zone in short periods of time.

The most critical period is the establishment stage; therefore, organics are most beneficial at the time of and during the first few months after the planting of the grass, says Deal. Once grasses are established, they furnish their own organic materials.

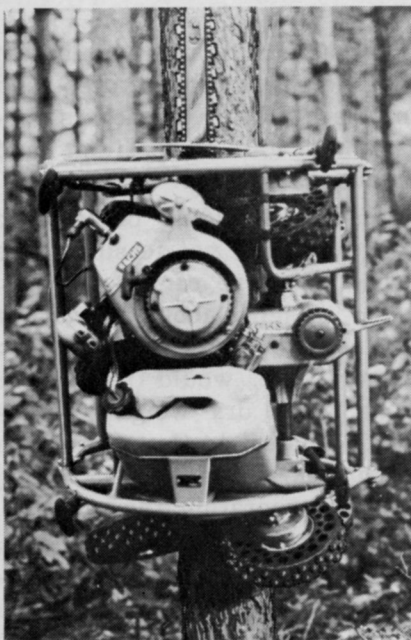
Deal also points out that certain organics used as a mulch (wheat, barley, straw) at the time of seeding are very helpful.

# New Products . . .

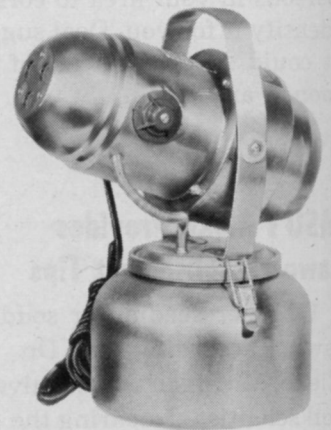
# Designed for the Vegetation Control Industry



Methods Research Corp., 105 Willow Ave., Staten Island, N. Y., 10305, now offers a simple yet efficient method of scheduling, controlling and keeping track of various facets of your business. Neat, concise and easy to read, their new Magnetic Visual Control System can be used 71 ways, says the company, from keeping track of equipment and salesmen to showing how far a certain job has progressed. Illustrated is a system installed to increase efficiency of an entire engineering and research department. Projects are listed under sub-heads. Easily moved magnetic card holders indicate the various steps through which a project passes. This system simplifies planning personnel work loads plus enables the chief engineer to tell at a glance the full status of his department. No erasing or rewriting; easy to keep up to date. For details write the company for a free 28-page catalog price list. For more details circle (701) on reply card.



Forestry Service Products, Inc.'s self-propelled "Tree Monkey," through a combination of climbing wheels, crawls up tree trunks by itself automatically pruning branches as it goes. With pre-set pruning height (maximum 50 ft.) and automatic reverse, it returns by spiraling back down the trunk. Prunes trees in the 4 to 9" DBH range and takes only 4 minutes for a 33 ft. height, says the co. The "Monkey" weighs just 105 lbs., has a 2.7 HP engine and clipper type saw chain that's oiled automatically. Write the company, P. O. Box 229, Wheaton, Ill. 60187. For more details circle (702) on reply card.

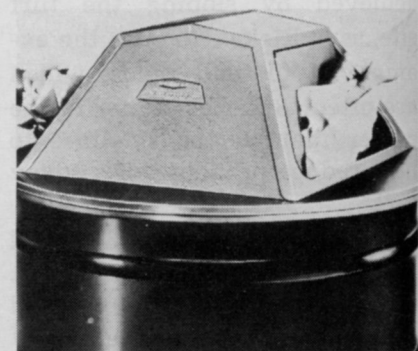


Hub States Corp., 2002 N. Illinois St., Indianapolis, Ind., has introduced a new odor-killing team: Hubsco 431 deodorant and Hubsco Portable Electric Fogger. Hubsco 431 leaves a fresh scent but no residue, won't interfere with antiseptics in hospitals, is safe around foods, says Hub States. The fogger creates a "tornadoic" whirl that reduces deodorant particles to 14 mass microns, enabling the "cold, dry" fog to reach every odoriferous area says the company. For more details circle (703) on reply card.



◆ Magna Sales Co., 1555 W. Howard St., Chicago, Ill. 60626, has made available a lightweight binocular magnifier, left, SIGHT-MASTER (\$6.95). Protects the eyes, magnifies over 2½ times. Polished prismatic lenses. For more details circle (704) on reply card.

General Scientific Equipment Co., P. O. Box 3038, Philadelphia, Pa. 19150, introduces #1711 CONVERT-A-DRUM, right, an adjustable self-closing lid for 15, 30 and 55 gal. drums. Made of heavy fire-proof steel; rust-proof finish, 2 free-swinging doors. For more details circle (705) on reply card.





## **Ferguson Resigns U. S. Golf Assn. Position**

Dr. Marvin H. Ferguson, Mid-Continent Director and Research coordinator for the United States Golf Association Green Section has resigned, effective at the end of the month, to engage in private business as president of Agri-Systems of Texas, Inc.

Agri-Systems of Texas, Inc. will provide a variety of services to turf and to agriculture in general. Areas of activity will include golf course design and construction supervision, irrigation systems design and installation, laboratory services for physical analyses of soils, sod production and sales, and consultation services for the turf-grass industry and for agriculture. Offices and laboratory of Agri-Systems of Texas, Inc. are located at 1200 Villa Maria Road, P. O. Box 3757, Bryan, Texas 77801.

## **Stripe Smut Is Difficult To Control, Says Partyka**

Stripe smut, a serious problem on Merion bluegrass, is caused by a fungus that grows best during cool temperatures of early spring and late fall, according to R. E. Partyka, Extension plant pathologist at The Ohio State University.

Infected plants are often stunted and pale green to yellow in color. As the disease advances, the leaf blades curl; gray to black stripes, from which a soot-like dust can be rubbed, appear. In advanced stages the leaves twist, curl and split from the tip downward, leaving the turf looking gray and ragged.

The fungus grows in the plant tissue; once a plant is injected, the fungus remains there until the plant dies, says Partyka. Spores or seeds produced by infected plants can infest the soil. Upon germinating, the spores will invade grass seedlings or young tillers of older plants.

There is no sure-fire control program for the disease. Since it is inside the plants, sprays normally used in controlling turf diseases have not proved satisfactory.

If stripe smut is detected early—and is not too severe—some degree of control can be obtained by applying nabam at 2½ pts. of 22% active material per 1000 sq. ft. of turf in sufficient water to wet the soil to a 2-in. depth. Application should be made in early spring or late fall.

Proper fertilization and irrigation practices will help to overcome some of the disease symptoms, says Partyka, and may help the turf to make a faster recovery.

## **Central Nebraska Tech Has Horticulture Course**

The Agriculture-Related Department at Central Nebraska Tech now offers a two-year program in Horticulture Technology.

Opportunities in landscaping, turf and park management and floral and nursery plant culture and sales are plentiful for graduates, according to the school. Specific positions include golf superintendents, landscape or nursery foremen, arborists, greenhouse growers and foresters.

Included in the course's objectives are: understanding the principles of basic soils and fertilizers; understanding problems relating to the general field of horticulture; developing the ability to supply needed information concerning turf management, weed and insect problems, disease problems, pruning and maintenance practices, landscaping practices and floriculture; developing the ability to communicate effectively; learning to operate and maintain equipment; familiarizing students with management practices of turf grass, trees, shrubs and greens.

Contact Morland Rucker, Cen-

tral Nebraska Tech, Box 1024, Hastings, Neb., for more information.

## **Sodding Provides Best Turf Success in Summer**

Sodding is the only reliable way of establishing turf in the summer, according to Elwyn E. Deal, University of Maryland turf specialist.

For good sod, Deal says to be sure it is free of off-type perennial grasses, such as tall fescue, nimbleweed and timothy; crabgrass, goosegrass, foxtail and annual bluegrass should be avoided, too, as should broadleaf weeds, poison ivy and thistles. Never buy sod without seeing it first, Deal recommends.

Turfgrass varieties and/or species are of utmost importance, he says. Use only those varieties which have proven successful in your area.

Be on the lookout for mixtures designed for shady areas. In full sunlight, red fescue—the primary grass for use in shady spots—is not a good competitor with Kentucky bluegrasses.

Soil preparation before sodding is as important to successful establishment of sod as it is to seed, says Deal. The same methods and procedures should be followed for both with one exception: fertilizer ratio for sodding should be about 1-1-1, whereas in seeding it is usually 1-2-1 or 1-2-2.

## **New Folder Explains Uses of Vapam® Soil Fumigant**

The Stauffer Chemical Company has recently made available a six-page folder (A-1037) describing the various uses of its Vapam® soil fumigant. Weeds and soil-borne disease organisms controlled by Vapam and pre- and post-application methods are also discussed. Write the company's Agricultural Division, 299 Park Ave., New York, N. Y. 10017.



SOD INDUSTRY SECTION



## Second Field Day of ASPA Is An Action Spectacular

Few national organizations in their early days have matched the progress of the year-old American Sod Producers Association. Organized formally in mid-July of last year, this group has staged 2 major national summer field days and one winter annual meeting.

Their first big field demonstration was in July, 1967, at Lansing, Mich. The latest, held July 30 at Shamrock Turf Nurseries, Hanna, Ind., was a major production. Practically every builder or supplier of sod production equipment was on hand to demonstrate available equipment for the industry. Well over 400 growers and commercial representatives attended. Don Morrill, president of Shamrock, served as host and Dr. William Daniel, Purdue University, as emcee. Rain threatened during the

Don Morrill, president of Shamrock Turf Nurseries, Hanna, Ind., served as host for the 2nd ASPA national field day.

