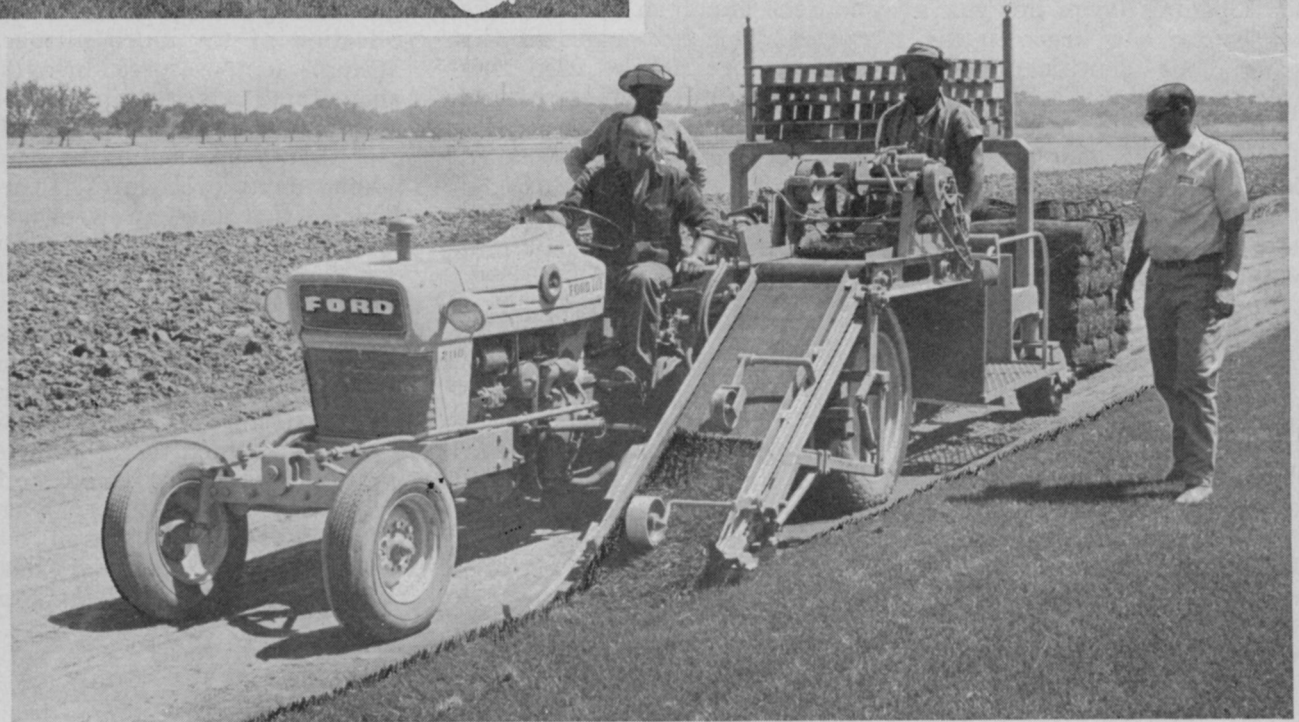


Eliminate this expensive, troublesome method of hand rolling sod.



Patent applied for

## *Cal-Turf* SOD HARVESTER

With the Cal-Turf Sod Harvester and 3 men you can lift, roll and palletize up to 1000 square yards of sod per hour! Designed to handle any width and length of rolled or slabbed sod. Clear visibility at all times, field grading of sod is done by the tractor operator. All conditions are easily and quickly adjusted for with hydraulic controls. The Sod Harvester travels alongside the turf, never on the turf during harvesting, it will pick up and roll sod under any moisture conditions. Loaded pallets can be spotted for later field removal and be clear of the next harvesting run. If direct truck loading is desired a conveyor extension is available. The basic power train is a Ford LCG-2110 wheel tractor. The sod harvester can travel at speeds up to 20 MPH for quick transportation between plots.

For more information on the Cal-Turf Sod Harvester  
please contact:

**JOHN NUNES MECHANICAL HARVESTING CO.**

2518 LOQUOT AVE., PATTERSON, CALIFORNIA, PHONE (209) 892-6311

# OSU Short Course Talks

## Turf in Columbus, Jan. 23

Turf managers, arborists, landscape contractors, garden center operators, and nurserymen all had sessions aimed to their interests during the 38th Ohio State University Short Course, January 23 to 26 in Columbus, Ohio. Opening day of this year's short course saw treemen discussing plant identification, research, and problems of municipal, industrial, and utility arborists. At the same time, turf talks opened with a discussion of the sod industry by Dr. James Beard, Michigan State University agronomist.

Citing a twentyfold increase in Michigan's sod production, from one thousand acres in 1955 to more than 20,000 in 1965, Beard said this is due in part to the fertile soils of the eastern half of Michigan's lower peninsula and to the cool, favorable summer temperatures. Adding to the great increase in quality commercial sod has been the decrease in use of low-quality pasture-stripped turf, aside from occasional roadbank plantings.

Beard suggested these seeding rates for establishing new stands of sod: bluegrass, 25 to 40 lbs. per acre; red fescue, 60 to 100 lbs. per acre; bluegrass-red fescue mixtures, 35 to 65 lbs. per acre. Exceeding these rates will give a heavy stand of young seedlings, which will develop into sod slowly due to competition for light. Factors which play a part in selecting proper seeding rates were described as: percent of seed germination, seed purity, seedbed condition, time of seeding, rainfall and irrigation, and temperature.

Proper mowing techniques will do much to determine the quality of a turfgrass crop, Beard continued. Mowing should be frequent enough to remove no more than a third of the foliage. New vegetative growth is stimulated by severe defoliation, with a consequent reduction in the rate of rhizome and

sod formation. In addition, thatch appears to be more of a problem when grass blades are cut to longer lengths. Very low cutting heights (about  $\frac{3}{4}$  in.) appear to stimulate turf density and increase rhizome production, the Michigan researcher reported. But he suggested that this practice not be used commercially until further research has been conducted, since other considerations are involved.

Beard recommended these rates for applying nitrogen to sod growing on organic and mineral soils (in lbs. of N per acre):

	Organic	Mineral
Merion Common	120-180	240-320
Kentucky	80-120	80-160
Red fescue	40-75	60-100

Nitrogen fertilization is affected by rate of release from soil and by irrigation and rainfall. Intervals of four to six weeks were suggested between application, with no more than

40 to 60 lbs. of N per acre applied at any one time. Improper use of nitrogen, causing root reduction in sod, results from: excessive total nitrogen application, with a resultant stimulation of top growth; excessive nitrogen at any one feeding; or application of too much nitrogen at high temperatures, bringing about rapid release from the soil and slowdown in plant growth.

With the application of good management procedures, Beard forecast that many growers may soon be getting three crops every two years. Once the sod is stripped, however, postharvest problems arise, one of the most common being sod damage from high temperatures during shipping and storage. Referring to a study in which thermocouples were placed in stacked sod, Beard recounted that damage occurred at temperatures of 100° to 105°, too low for standard heat damage. This might be attrib-



Ohio turf specialists, Dr. Merle Niehaus (left, at the microphone), and Dr. R. R. Davis (standing, right) addressed turfmen at The Ohio State University's annual short course.

Dr. L. C. Chadwick (right) secretary of the Ohio Chapter, ISTC, congratulates T. D. Neil, of the Ohio Power Co., Canton, on his election as chapter vice president. Chosen president of the Ohio group was Harold C. Simon, of the Natorp Landscape Organization, Cincinnati.



uted, he felt, to a gaseous interchange of some sort.

#### Sod Motivates Seed Purity

The sod industry has been a prime motivating factor in the demand for higher seed purity, Dr. Robert Schery, Director of The Lawn Institute, Marysville, Ohio, asserted.

Among the determinants of quality grass seed are genetic, physiological, and purity factors. Consumers, boosted by new federal laws requiring publication of certain information on purity and type of grass seed, are now convinced that better grass varieties are available. Better seed depends on such a complex of elements that watering and fertilizing treatments given parent plants may even show up in seeds.

Turning to purity—freedom from contaminants such as chaff, weeds, and unwanted grass seeds—Schery referred to a survey in which 1707 assorted seed samples were analyzed for contamination by noxious plants. Findings were compared to a listing of all reported noxious plants. It is interesting to note, Schery said, that most reported noxious weeds did not even occur in the samples, and of those that did occur, most can be easily controlled with chemicals.

#### Bad Year for Bluegrass

Turning to grass breeding research at the Ohio Agricultural Experiment Station, Wooster, Ohio, Dr. Merle Niehaus called 1966 a bad year for bluegrass because of prolonged drought and high summer temperatures. However, adverse growing conditions greatly facilitated evaluation of tolerant varieties.

Niehaus ranked some twenty bluegrass varieties under test on the basis of leafspot occurrence, fall color, percentage of bare ground in sodded area, percentage of weeds in plots, density ratings, and melting out losses. Plots were located at Wooster, Ripley, and Columbus, Ohio, though some varieties were tested at only one location. Merion topped the list, followed by Windsor. Among the more commonly known varieties, these were followed by Newport C-1,

# oil? who needs it!

**NEW TRONIC, THE SPREADER-ACTIVATOR FOR  
HERBICIDE SPRAYS, DOES THE JOB BETTER—  
FAR MORE ECONOMICALLY**

TRONIC is a new non-foaming adjuvant designed specifically for use with herbicidal sprays. Substantially improves wetting and distribution of the spray on the plant. Enhances activity of herbicides. Ask your agricultural chemical supplier for complete information or write direct to:



## COLLOIDAL PRODUCTS

C O R P O R A T I O N

P. O. BOX 667, SAUSALITO, CALIFORNIA 94965

*Adjuvants for Agricultural Chemicals since 1920*



Campus, Newport, Prato (about midway in the standings), Park, Arboretum, common Kentucky, Cougar, NuDwarf, and Delta.

Pointing out the similarity between this composite ranking and relative resistance to *Helminthosporium* leaf spot, Niehaus emphasized the importance of tolerance to this disease.

No new varieties are yet available from the Ohio Station, the researcher reported, due to the time required for selection and buildup of desirable strains. Selection is the most common approach to producing new varieties of apomictic bluegrasses. Isolation of desirable phenotypes from a plot of grass, although difficult, provides the breeder with material for a conscientious program of breeding and selection, Niehaus said.

Emphasizing that the next major problem confronting the turf industry is that of getting a sound grass breeding program established, the speaker specified several ways to approach new introductions: introduction of a single line as a variety; mixing of those lines showing strong points; release of several lines with recommendations for blending; and mixing on the basis of seed productivity with a blend of the several varieties, a slow process due to the time required to test lines.

#### **Mowing as a Science**

Mowing is the most reliable way to control bluegrass flowering, Dr. R. R. Davis, Ohio State University agronomist, stated. Bluegrass normally grows with bursts in the spring and fall and a slower period of growth in the warmer summer. If permitted, it will usually flower during the late spring. However, low nitrogen levels can bring about greater flower production in some varieties.

It has been shown, Davis continued, that reduction of top growth and development, as well as of root growth, is directly proportional to clipping depth. For example, he pointed to work done with red fescue, where consistent mowing at 1/2 in. for a three-year period resulted in growth 40% to 75% lower than check plots mowed at a height

of 2 in. Low mowing, according to Davis, not only stimulated regrowth of foliage with a corresponding decrease in root production, but greatly reduced the photosynthetic area as well. Another benefit of a 2-in. clipping height is that weed control problems are minimized because of heavier sod formation, Davis added.

Actual mowing height should depend on the use to be made of the area and the growth habit of grasses employed. Reel mowers are preferred, particularly for closer clippings. Further, turf should be mowed in different directions periodically to prevent grass from being constantly pushed at one angle. Concluding his remarks, the Ohio agronomist maintained that removing clippings after each mowing takes needed minerals from the soil, resulting in a gradual depletion of nutrients.

#### **Weeds Defy Description**

The precise description of a weed is impossible to formulate, since what may be a weed to one person is being cultivated by the next, Dr. E. W. Stroube, of the Department of Agronomy, The Ohio State University, told the turf session. Best weed controls are a dense turf providing stiff competition to germinating weed seeds, and weed-free grass seed.

Good chemical controls are available today for almost all broadleaf weeds, Stroube said. Amine form of 2,4-D can be used to great advantage, but although this form greatly reduces spray drift, spraying should still be done on a calm day with low pressures and avoidance of direct contact with desirable plants. For plants resistant to 2,4-D, silvex can be used; however, it is more powerful and requires greater care in handling. Dicamba can be used on those plants which are resistant to 2,4-D and silvex; but once again, it is still more powerful and demands even greater care. Finally, MCPP can be safely used on bents.

Although a dense turf prevents germination of much crabgrass, its eradication from turfgrasses can be accomplished with such chemicals as Bandane,

benfin, Betasan, calcium arsenate, Dacthal, Tupersan, and Zytron. Stroube defined Betasan and calcium arsenate as safest on bents, and Tupersan (siduron) as safest on new bluegrass seedlings. Preemergent seedbed materials should be applied in February, March, or April, he concluded.

#### **Bluegrass Masters Tall Fescue**

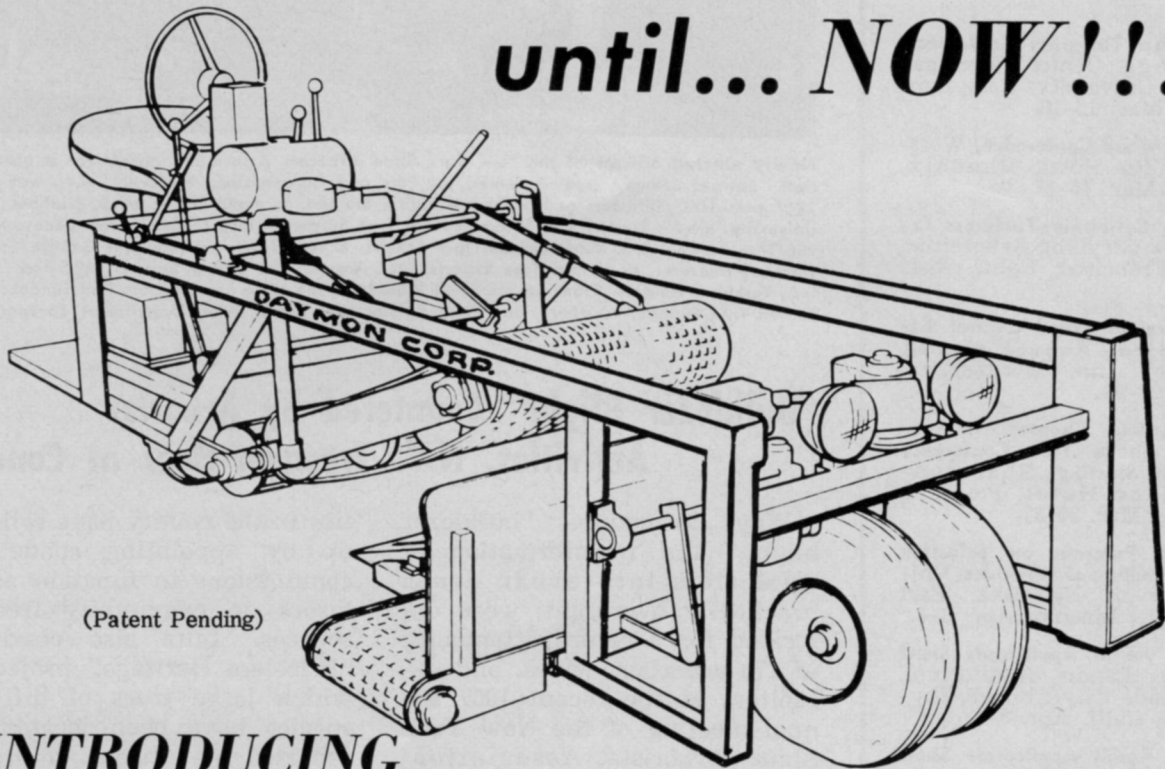
With reference to the 1961 renovation of Ohio State University's football field, Dr. R. W. Miller, University agronomist, remarked that, by the end of the second football season, the new turf was entirely bluegrass, whereas the original seeding mixture had been 90% tall fescue.

Bluegrass dominance was aided by mowing at a 2-in. level, and by repeated high nitrogen fertilization. Severe winter kill of tall fescue was given as the final reason for bluegrass dominance. In an experiment to prove this point, Miller demonstrated that high nitrogen plus cold temperatures followed by warm temperatures caused a loss of much fescue. Conversely then, if it is desired to maintain a high percentage of fescue, low nitrogen levels must be maintained.

Dr. Miller is executive secretary of the Ohio Turfgrass Foundation, formerly Ohio Turfgrass Council, one of the organizations sponsoring the Columbus short course. New president of the Buckeye turf group is Harry Murray, Akron, who takes over from retiring president, Curtis Overton, of Worthington. Charles Tadge, Toledo, is first vice president; Robert Reiman, Woodville, is second vice president; and Richard Baldridge, Lima, serves as treasurer.

Other sponsors of the four-day meet were the departments of Agronomy, and Horticulture and Forestry, The Ohio State University; Ohio Nurserymen's Association; and the Ohio Chapter, International Shade Tree Conference. Cooperating in the program were the Ohio Agricultural Research and Development Center, and the Ohio Cooperative Extension Service.

**There has never been  
a sod roller on the  
market that really worked  
until... *NOW!!!***



(Patent Pending)

**INTRODUCING  
The DAYMON SOD ROLLER**

At last! A sod roller that really works, and delivers up to 2,000 yards of neatly rolled sod per hour.

The Daymon Sod Roller is the product of 4 years of experimentation and has successfully rolled over six million yards of sod at the giant Emerald Valley Turf Nurseries in Gregory, Michigan, saving them more than \$100,000 in labor costs.

This machine can save you enough on labor cost to pay for itself on the first 75 acres of sod harvested!! This fact alone sold the Daymon Sod Roller to 12 of the first 15 men to see it.

The refinements this machine has undergone have given it a clean, uncluttered design and a sleek, low look. (It measures 96" long, 36" wide and

28" high). The steering mechanism and conveyor drive are tucked neatly inside the tubular frame, out of the way for easy servicing.

We can have one of these machines in your field to roll the first sod of the 1967 season. We invite your inquiries and visits to our Gregory, Michigan plant. Or we will come to you. The time to eliminate next season's problems is right now!

Forget everything you've ever heard about sod rollers of the past. The Daymon Sod Roller is the first machine of its kind that can save you thousands of dollars a year and do a dependable and perfect job day after day during your sod harvesting season.

**GET ROLLING RIGHT IN '67!  
Call - Wire - Write - Immediately...**

**MILLER DISTRIBUTOR INC.**

1593 S. Woodward Ave.

Hal Vogler - President

Birmingham, Michigan 48011

Phone (313) 647-7700

## Meeting Dates



- Southern Shade Tree Conference**, John Marshall Hotel, Richmond, Va., Mar. 12-15.
- Iowa Turfgrass Conference**, Hotel Savery, Des Moines, Mar. 13-14.
- Michigan Turfgrass Conference**, Kellogg Center, Michigan State University, East Lansing, Mar. 15-16.
- Western Weed Conference**, Westward Ho Hotel, Phoenix, Ariz., Mar. 15-17.
- Northern California Turfgrass Exposition**, Strybing Arboretum, San Francisco, Calif., Mar. 22-23.
- West Virginia Weed Control Association, Annual Meeting**, Holiday Inn, Morgantown, Mar. 28-29.
- New England Chapter, International Shade Tree Conference Annual Meeting**, Sheraton-Eastland Hotel, Portland, Maine, Mar. 30-31.
- Nebraska Program on Selection and Handling of Pesticides**, University of Nebraska, East Campus, Lincoln, Apr. 3-4.
- Western Aerial Applicators Short Course**, Landis Auditorium, Riverside City College, Riverside, Calif. Apr. 3-4.
- Western Aerial Applicators Short Course**, Caravan Inn, Sacramento, Calif., Apr. 5-6.
- Canadian Chapter, International Shade Tree Conference, Annual Convention**, Holiday Inn, Ottawa, Ontario, Apr. 27-28.
- Florida Turfgrass Trade Show**, Diplomat Hotel, Hollywood By The Sea, Fla., Apr. 27-29.
- Western Chapter, International Shade Tree Conference, Annual Meeting**, Hotel Coronado, San Diego, Calif., Apr. 30-May 3.
- Florida Nurserymen and Growers Association, Annual Convention**, Robert Meyer Motor Inn, Orlando, May 25-27.
- The Hyacinth Control Society, Annual Meeting**, Holiday Inn, Fort Myers, Fla., June 18-20.
- American Association of Nurserymen, Annual Convention**, Americana Hotel, Bal Harbour, Fla., July 8-13.
- International Shade Tree Conference, 43rd Annual Convention**, Marriott Motor Hotel, Philadelphia, Pa., Aug. 27-31.



Newly elected officers of the New York State Arborists Association gather for a group portrait. Edward Johnson (seated center), of Parr and Hanson, Inc., Hicksville, N.Y., was elected 1967 president. Directors and officers standing are (left to right) Dr. A. M. S. Pridham, Cornell University, Ithaca; Frederick R. Micha, Monroe Tree Surgeons, Inc., Ontario; Fred Donovan, Donovan Tree Service, Inc., Mechanicville; Jack Schultz, Schultz Nurseries, Merrick; George Callaway, secretary-treasurer, of Lenroc Tree Experts, Inc., Argyle; and Walter Sturmer, ABC Tree Service, Inc., Yorktown Heights. Flanking president Johnson at the table are directors Carl Lundborg (left), Bartlett Tree Experts, Westbury; and Peter Bartholomew (right), Parks Department, Lockport.

## "Bulldozer Blight" Countered by Arborist Activities, N.Y. Treemen Hear at Concord

Ways to counter "bulldozer blight," the transformation of rural areas into urban areas practically overnight, were described for a record attendance of 170 arborists, wives, and exhibitors at the recent 1967 annual meeting of the New York State Arborists Association, which took place at the Concord Hotel, Monticello, N.Y.

Paul A. Lutz, Cooperative Extension Agent for Rockland County, described the change from rural, historic Hudson River country into an urban area in a single year, an experience already felt in Nassau and other New York counties. Only by creating public awareness has an informed citizenry been able to effectively moderate the change brought on by construction of three major thruways and numerous housing units within county limits.

Concern over the loss of shade trees led to Arbor Day plantings around the Rockland County Court House and other locations in the city. With editorials in local papers adding to public interest, some 20,000 trees have been planted in four years of cooperative effort. Many communi-

ties in the county have followed up by appointing shade tree commissions to function as advisors on community tree resources. Lutz also cited the "Priceless Heritage" project, in which large trees of different species have been located and reported by citizens to provide an inventory of historic trees in the county.

Also emphasizing Rockland County's drive to save and enhance its natural resources was Joseph St. Lawrence, county assemblyman, who addressed the association's annual banquet. Bulldozer blight and suburban sprawl have been curtailed and channeled into planned activities, St. Lawrence said. Rockland County's Conference on Natural Beauty, organized a year ago, has been instrumental in getting many citizen organizations to highlight the importance of trees and park woodlands, as well as water resources and open land for public activity. Congratulating arborists on their participation in these activities, the assemblyman concluded that such necessary and timely measures will promote a healthy environment for modern living.

## Technical Problems Reviewed

Professor Carl Gortzig, extension leader in Cornell University's ornamental horticulture department, chaired a second-day discussion session on updated tree care. Problems raised by attending arborists covered various phases of pest control, including the possibility of periodic population counts as a basis for predicting insect peaks and pesticide needs. It was emphasized that reports from arborists in the field could help follow pest developments in order to establish correct timing for optimum control measures.

Other problems broached included the decline of shade trees during long periods of drought, a matter now under investigation. Conferees were also cautioned that study of new cultivar plantings is needed to establish performance records.

Moving on to urban tree plantings, Dr. Robert Mower, of Cornell University, Ithaca, recounted his experience with newly planted shade trees under city conditions of Buffalo and Long Island. Yearly records are kept on new plantings along city streets and highways, Mower explained. Using Buffalo as an example, he added that, though public interest is keen, records show that new plants are often mistreated.

Improvement of tree vigor through watering and fertilizing was another point raised by arborists during the discussion sessions. Attention was drawn to the fact that root action continues through late October and November into December, and that fall fertilizers are taken up to improve twig and bud growth during the short period of early spring, when most growth for the year actually occurs.

A midwinter tree planting ceremony and exhibits of specialized equipment for treemen also marked the '67 meeting, which was hosted by Hudson Valley arborists. Honored at the New Yorkers' banquet was Cornell Professor A. M. S. Pridham, who will soon be retiring after 42 years of service. Site of the '68 annual meeting has been designated as Ithaca.

## Know Your Species

### CHEAT (*Bromus secalinus*)



Among the more than 40 species of brome grass found in the United States are some of our most important forage grasses and also some of the most bothersome weeds. This particular species, cheat or chess, is described as being nearly typical of the entire group. If the plants were more palatable to farm animals during the entire growing season, instead of during only spring and late fall, they would be considerably more important as feed crops.

Cheat was introduced into the U.S. as an impurity in seed, and is widespread throughout the country. Plants are found in grain fields, grasses, along roadsides, and in various waste places. Cheat is widely regarded as a noxious weed, and its seed often appears in large-seeded grasses, such as tall fescue.

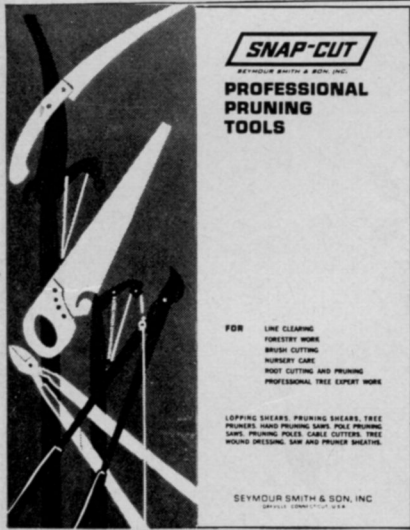
An annual or winter annual, cheat spreads by seed. Young plants often appear in the fall, produce some growth before winter, and resume in the spring. Leaf blades are typically flat, with edges of the sheath growing together to form a tube. Smooth, erect, unbranched stems grow up to 4 ft. tall (1 shows the lower stem). Seed heads are usually open, forming panicles (2).

Each spikelet (3) contains 6 to 10 seeds (4), which are deeply grooved, rather canoe-shaped, and of dark orange-brown color. Seeds may bear a short bristle,  $\frac{1}{8}$  to  $\frac{1}{4}$  in. long.

With a long growing season, plants are able to withstand periods of drought. Since reproduction is by seed, regular mowing of grasses offers little chance for continued survival of the species. Cheat is resistant to 2,4-D, 2,4,5-T and silvex. It has been suggested that chemical control may be obtained from applying Betasan (selective, preemergence herbicide) in the fall when seeds germinate, using normal crabgrass rates of the chemical.

(DRAWING FROM NORTH CENTRAL REGIONAL PUBLICATION NO. 36, USDA EXTENSION SERVICE)

# NEW



## Send for your copy PROFESSIONAL PRUNING TOOL CATALOG

Complete specifications, prices, spare parts list for the **SNAP-CUT** Professional line of lopping shears, tree pruners, hand pruning saws, pole pruning saws, pruning poles, cable cutters, tree wound dressing, cable cutters, saw and pruner sheaths.

Everything you need for Line Clearing, Forestry Work, Brush Cutting, Nursery Care, Root Cutting and Pruning, Professional Tree Expert Work.



SEYMOUR SMITH & SON, INC.  
OAKVILLE, CONNECTICUT, U.S.A.

## 3 Steps to Compute Small Fertilizer Applications

Nurserymen, landscape managers, and others concerned with fertilizing small areas often have difficulty figuring how much fertilizer to use, since the recommended amounts usually are given in pounds per acre. For small areas, the convenient measuring tools are pints, cups, tablespoons, and teaspoons.

The accompanying table will help convert pounds to teaspoons. Conversions shown are not exact, but are accurate enough to serve as a guide in determining the proper amount of fertilizer.

Listed are weights of fertilizers to be applied to areas of 100 and 1,000 sq. ft. Also listed are the equivalent volumes for vari-

ous fertilizer materials applied to 10 and 100 sq. ft. Note that the volume of fertilizer to be applied varies with different materials, even though the weight to be applied is the same. This is because of differing weight/volume ratios. A pint of ground limestone weighs 23 ozs., while a pint of ammonium nitrate weighs approximately 13 ozs.

To use the accompanying table, follow these three steps:

1. Find the desired material.
2. Find the recommended rate per acre.
3. Determine the amount of fertilizer needed for the area to be covered.

For example, if the material

1. Find Material in List Below	2. Find Recommended Rate/Acre	3. Determine Amount of Fertilizer Needed for Your Area			
		Use These Weights:		Use These Volumes:	
Material Grouped by Approx. Weight per Pint	Lbs. per Acre	lbs./100 sq. ft.	lbs./1000 sq. ft.	tbsps./10 sq. ft.	pts./100 sq. ft.
Act. sewage sludge	100	.2	2.3	1.2	.4
Dried blood	500	1.2	11.5	6.0	1.9
Sulfur (10 ozs./pint)	1000	2.3	23.0	12.0	3.7
Ammonium chloride	100	.2	2.3	.9	.3
Ammonium nitrate	500	1.2	11.5	4.5	1.4
Urea (13 ozs./pint)	1000	2.3	23.0	9.0	2.8
Ammonium phosphate	100	.2	2.3	.7	.2
Gypsum	500	1.2	11.5	3.5	1.2
Mixed fertilizers	1000	2.3	23.0	7.0	2.3
Potassium chloride (16 ozs./pint)					
Ammonium sulfate	100	.2	2.3	.6	.2
Calcium nitrate	500	1.2	11.5	3.0	1.0
Mixed fertilizers	1000	2.3	23.0	6.0	2.0
Superphosphate (19 ozs./pint)					
Ground limestone	100	.2	2.3	.5	.2
Potassium sulfate	500	1.2	11.5	2.5	.8
(23 ozs./pint)	1000	2.3	23.0	5.0	1.6
	2000	4.6	46.0	10.0	3.2

Equivalents that can aid conversions:

An acre equals 43,560 square feet (a plot about 209 ft. by 209 ft.).

A pint of water weighs about 1 pound.

A pint equals 2 cups, or 32 tablespoons, or 96 teaspoons.



is ammonium sulfate and the recommended rate is 500 lbs. per acre, use 1.2 lbs. or 1 pt. for a 100-ft. area. To compute the amount to apply of fertilizers not listed, scoop the material loosely into a 1-pt. container and weigh carefully. If the material weighs 16 ozs., for example, use the third block in the chart.

From material prepared by B. A. Krantz, Extension Soils Specialist, University of California, and N. C. Welch, Farm Advisor, San Bernardino County, California.

### Emphasize Basic Research, Campana Tells Penn Treemen

We are rapidly losing time in developing the basic knowledge necessary to solve and prevent problems affecting our trees, Dr. Richard Campana, president of the International Shade Tree Conference, told members of ISTC's Pennsylvania-Delaware Chapter at their recent annual meeting, held in conjunction with the 2nd annual Pennsylvania Shade Tree Symposium, at University Park, Pa.

Though immediate problems of environment, pathology, and entomology have been fairly well met with known methods, priority should go to basic research in arboriculture. Dr. Campana, botany professor at the University of Maine, suggested it is time for ISTC to re-evaluate its purposes and potentials, and for arborists to analyze their profession more deeply.

Beautification, plant selection, care of newly setout trees, and tree evaluation were discussed for the more than 100 arborists attending the tree symposium. Liveliest discussion revolved around the contention of Dr. L. C. Chadwick, ISTC's executive director, that a given tree has a given value regardless of its location. An arborist is qualified to evaluate trees, not real estate, Chadwick pointed out.

Elected '67 president of the Penn-Delaware Chapter was Walter Morrow, Sewickley, Pa. George Maurer, Greenville, Del., and Fred A. Ashbaugh, Delmont, Pa., are vice presidents. Re-elected secretary-treasurer was John Anspach, Bethlehem, Pa.

# Much more than a mist.



... a powerful, hit-the-mark, jet spray is what is produced by this Solo Mistblower... Shoots the atomized drops in just the right concentration to the target. Light enough to carry into and over rugged, choked terrain, the Solo combines performance with portability. Power to reach tallest fruit tree tops. Versatility for all types of jobs.

Virtually maintenance-free, the Solo is ideally suited to a wide range of liquid application jobs. This is the mistblower that has blazed the trail for portable spray application throughout the world... because this mistblower produces much more than just a mist.

*Write for complete line of free, full-color brochures.*

**solo**  
*performs*

**SOLO INDUSTRIES, INC.**  
5100 TB Chestnut Avenue  
Newport News, Va. 23605

*Leading manufacturers of engines, chain saws, hand sprayers, mist blowers and other outdoor equipment for home and industry.*

# Insect Report



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



## Turf Insects

**A CHINCH BUG**  
(*Blissus insularis*)

**Texas:** Moderate in several lawns of St. Augustinegrass at Austin, Travis County. Early activity probably due to unseasonably warm weather.

**RANGE CRANE FLY**  
(*Tipula simplex*)

**California:** Larvae heavy in rain gutters along concrete apron of freeway in Sacramento, Sacramento County. Crane flies appearing in several areas as result of more than normal rainfall. Continued wet weather may result in damaging infestations in turf.

## Insects of Ornamentals

### APHIDS

**Alabama:** (*Eulachnus*, spp.) continue to increase on pine needles in central section. *Aphis spiraeicola* eggs and some hatching noted on spires in central and southern areas. Light to medium numbers of aphids feeding on leaves and some blossoms developing as result of extended mild weather. Eggs heavy on stems and branches of these ornamentals. **Ari-**

**zona:** (*Macrosiphoniella sanborni*) heavy on ornamentals in yards throughout Yuma, Yuma County. **California:** (*Aphis gossypii*) adults heavy on crassula at Escondido, San Diego County; beginning to show on citrus also. *Myzocallis arundinariae* medium on bamboo nursery stock in San Diego County. **New Mexico:** (*Cinara*) species medium to heavy on arborvitae in Las Cruces; honeydew covered sidewalks. Light to heavy on ponderosa and pinyon pines in Albuquerque, Bernalillo County. **Oklahoma:** (*Cinara Tujafilina*) continues problem on evergreens in several areas of State.

### DOGWOOD BORER

(*Thamnosphexia scitula*)

**Alabama:** Larvae numerous under bark and feeding on cambium layer of ornamental dogwood trees in central area. Some feeding by flickers observed. Larvae 2-10 on larger trees.

### NANTUCKET PINE TIP MOTH

(*Rhyacionia frustrana*)

**Oklahoma:** Pupae present in 80 percent of ornamental pines checked in Sequoyah State Park, Wagoner County.

### PEACH TREE BORER

(*Sanninoidea exitiosa*)

**Alabama:** Larvae severely damaged several flowering peach shrubs in Lee County. Larval feeding at and below ground line on peach, laurel-cherry and flowering peach during recent warm, balmy weather caused considerable amount of gum residue to accumulate around injured bark.

## Tree Insects

### BROWN SOFT SCALE

(*Coccus hesperidum*)

**California:** Heavy on redbud trees in Arcata, Humboldt County.

### EASTERN TENT CATERPILLAR

(*Malacosoma americanum*)

**Florida:** Eggs hatching on wild plum and wild black cherry at Gainesville, Alachua County.

### GIANT BLACK APHID

(*Longistigma caryae*)

**Alabama:** Large number of wingless females noted at location in Decatur, Morgan County; apparently leaving hibernation and seeking food source. This aphid heavy on oak trees at this location last year. **Texas:** Infesting shade trees in Beaumont, Jefferson County, and Orange, Orange County.

### PINE NEEDLE SCALE

(*Phenacaspis pinifoliae*)

**California:** Heavy on Monterey pine trees in Gilroy, Santa Clara County. Medium on pine trees in Escondido, San Diego County. This scale insect has been very prevalent in past year in many areas.

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



# SODIUM TCA

PELLETS

MANUFACTURED IN HOLLAND

EXCLUSIVELY DISTRIBUTED BY:

# ROBECO

Chemicals, Inc.

51 MADISON AVE., NEW YORK, N.Y. 10010

212-683-7500

## Changing Your Address?

If so, notify our circulation department right away to be certain the magazine reaches you at your new location. The Post Office won't forward your copies. So when you write us, make it at least three weeks in advance of your moving date, and include your old address, as well as the new one. We'll see you don't miss a single issue.

Send old and new address information to:

**WEEDS TREES AND TURF** magazine

Circulation Department

Room 802

1900 Euclid Avenue

Cleveland, Ohio 44115