



Like many progressive growers, Ousley has designed and built equipment to handle sod. This trailer unit equipped with airplane tires permits sod to be moved efficiently to heavy trucks on hard surfaced roads. The practice eliminates compaction in the field.

the broad variety of equipment employed by Ousley in keeping his operation efficient on his big volume production. He automates wherever possible but because of sand soil, sod is folded and hand loaded on pallets. All further handling is done by forklifts. He has 11 in use on the various segments of his operation.

Salesmen, personal contact by Ousley himself, and several forms of advertising are used in marketing. Ousley sells to contractors, homeowners, landscapers, garden centers and others. About 35 percent of his total sales are delivered in his own trucks direct to the installation site. He maintains 12 trucks in the total operation.

As Ousley told growers who attended the San Francisco annual meeting of the ASPA last February, increasing production costs remain the greatest problem for growers in his area. Competent help is also difficult to obtain and to hold. Coupled with increasing land values in the normal sod growing areas of Florida, Ousley believes that

growers must continue to improve their efficiency to remain in business on a profitable basis.

All growers, whether members of the National Sod Growers Association or not, are being invited to attend the Florida session. President Ben O. Warren of Warren's Turf Nursery, Palos Park, Ill., and George B. Hammond, executive-secretary of the group and operator of the Paint

Valley Bluegrass Farm at Columbus, are contacting as many growers as possible regarding attendance. Goal of this meeting is to continue to enroll growers in the association.

Hammond (71 E. State St., Columbus, Ohio) reports that he will be happy to supply additional meeting details to those growers who wish to attend. He feels the educational program

Selective herbicide being sprayed on new sod crop on Ousley farm.





Forklifts are used in a pallet operation. All sod is folded and hand-loaded on pallets.

which has been planned for this year will be extremely helpful to the group.

Hammond reports that Ousley has devoted a great amount of time and effort in putting together a program which will fit the individual grower.

Opening the first session at 9:00 a.m. Wednesday will be Dr. G. C. Horn, turf technologist of the University of Florida, Gainesville. Dr. Horn's subject will be on sales and water management. Dr. Eliot Roberts, nationally noted turf researcher, who is now chairman of the University of Florida's department of ornamental horticulture will discuss research. He will be followed by Drs. Vernon Perry on nematodes and Thomas Stringfellow on insects. Dr. T. E. Freeman, plant pathologist, will complete the cycle with a discussion on turf diseases.

The afternoon session will feature weed control. Presenting this phase of the program will be Dr. Evert O. Burt, turf technologist at the Plantation Laboratory, Fort Lauderdale, Fla. Arthur Edwards, editor of *Weeds Trees and Turf* magazine, will present the results of a nationwide survey of sod producers which has just been completed. This extensive study among growers by WTT will give a

good indication of the total scope of the sod industry, management practices, and collective thinking of growers regarding problems and outlook for the industry. This industry survey is the most comprehensive in the industry to date and should be of value to growers.

Dr. Gene C. Nutter, editor-publisher of *Turf-Grass Times*, will discuss the future of artificial turf.

More than 70 growers and industry representatives attended the initial session of the ASPA on the West Coast. More are expected for the '69 annual session.

Diamonds' Dacthal W-75 Now Available for Turf

A new turf formulation, package and pricing structure for Dacthal, Diamond Chemicals' premium preemergence herbicide, promises to save growers at least a dollar an acre in herbicide costs.

The new Dacthal W-75 for turf is a 75 percent wettable powder formulation of Diamond's preemergence herbicide packaged in a new 24-pound green box and labeled especially for the turf and ornamentals market.

With its revised pricing structure the new, more concentrated

Dacthal W-75 makes it possible for growers of turf and ornamentals to get preemergence weed control at a lower cost. DACTHAL W-75 FOR TURF is a safe herbicide, and is specifically recommended on the label for use on 123 species. It has been long proven as a crabgrass killer, and is also recommended for control of such annual weeds as chickweed, foxtail, lambsquarters, purslane, poa annua and goosegrass.

White Is President of N.W. Bluegrass Assn.

Gordon White, Jenks-White Seed Co., Salem, Oregon, has been elected president of the Pacific Northwest Bluegrass Association. He succeeds J. L. Carnes, W. R. Grace & Co., Halsey, Oregon. New Vice-President is Arnie Bonnicksen, Western Farmers Association, Seattle, Washington. Ted Freeman, Pacific Supply Coop of Madras, Oregon was elected Secretary-Treasurer.

White said the Association's principle activities in the coming year will be to encourage an increasing emphasis on field burning research. He said that support of the Better Lawn & Turf Institute would be continued.

MOUNTAIN MISERY*(Chamaebatia foliolosa)*

Drawing from: California Range Brushlands and Browse Plants, by Arthur W. Sampson and Beryl S. Jespersen. Calif. Agric. Expt. Sta. Ext. Ser. Manual 33.

Prepared by: O. A. Leonard, Botanist, assisted by J. B. McCaskill, Senior Herbarium Botanist, Botany Department, University of California, Davis, California.

Mountain misery (*Chamaebatia foliolosa*) belongs to the Rose Family (Rosaceae) and is one of two species native to California and Lower California. Present in open stands of ponderosa pine and mixed forests of the Sierra Nevada of California, where it occurs as an extensive ground cover, its most characteristic trait is its unusual odor. Early settlers, finding it disagreeable, aptly labeled it "mountain misery."

This 2 to 4-foot tall plant is a densely branched

shrub with thin, pliable branches. Its evergreen leaves are fern-like, fragrant (especially annoying on hot days) and covered by a sticky substance that coats everything with which it comes in contact. They are ½ to 3 inches long, several times pinnately dissected into tiny crowded segments, each usually tipped with a somewhat yellowish resin gland. The young branches are glandular-pubescent and later exfoliate, leaving a smooth bluish to brown bark. The plant's flowers are white, ½ inch wide and structured in loose terminal clusters. Flowering occurs in May and June.

Mountain misery is not detrimental except during growth periods following severe logging or forest fires or when conversion of land into grass is preferred. It may be detrimental to older trees by reducing growth rates, especially where soil is shallow and water storage is limited. However, it forms a good ground cover that protects the soil against erosion. Mountain misery is essentially valueless as a browse plant for domestic livestock but does furnish some food for deer.

After a fire, this plant sprouts from underground stems that appear to be extensive. This is an ideal time to begin control because, under post-fire conditions, it is most sensitive to the phenoxy herbicides. In addition, fire removes the dense tangle of stems and other material that make planting of forest seedlings difficult and impractical.

When it is desirable to convert these areas into grass, the land must first be burned or mechanically worked or the seedlings will fail. The time to spray is after most of the underground stems have developed sprouts, which is usually in late June or early July following a fire of the previous year. Good kills can be obtained through early August by increasing the dosage; fairly good kills can be obtained in the autumn after fall rains have occurred. Some grass does develop naturally in the burned areas and competes with the planted conifers. Therefore, it is best to spray as soon as possible after a fire and then to plant the seedling trees the following fall, winter or spring.

Mountain misery is sensitive to 2,4-D, 2,4,5-T and silvex, so it is possible to use any of these herbicides. Although the plant seems to be most sensitive to 2,4-D, mixtures of the phenoxy are often used because of the variety of brush species to be controlled. Esters are preferable; dosages of 3 or 4 pounds per acre are recommended when selective control is not required.

Old or mature mountain misery is difficult to kill, at least without retreating it once or twice. However, an annual dosage of 4 pounds of 2,4-D, 2,4,5-T or silvex applied in June or July for 2 or 3 years is often sufficient for its eradication.

Tree Plant Food



Gordon H. Knowles
Knowles Tree Service
San Leandro, Calif.

Gordon H. Knowles, a veteran arborist, now spends almost full time marketing a plant food which he has been using on trees in his own business for 19 years.

Knowles, known among tree men almost as well for his testimony about Heller-Gro* as for his acumen as a career arborist, first tried this product as a liquid plant food in 1950. He had moved to Colorado Springs, Colorado for family health reasons after operating a successful tree business in Essex County, New Jersey. Noting that some nursery stock had extremely good color, he inquired about the cultural practices used in production.

Knowles found that Heller-Gro had been used and he immediately contacted Mrs. Mary K. Heller who with her husband had formulated this product and then started using it on his own tree feeding work. He says that at that time it was being sold to the "house trade" as a liquid packed in 5-gallon jugs, while sales to the consumer were in 1/2-ounce bottles through retail outlets. Today's professional buys it in a concentrated soluble paste form in 50 pound pails and 55 gallon drums. When this con-

centrate is mixed the contents of the 50 pound pail makes 2,500 gallons and the contents of the drum makes 25,000 gallons with a cost of roughly two cents per gallon and 8/10's cents per gallon in these sizes.

Heller-Gro's analysis is 15-15-15 with trace elements added. It contains three nitrogen sources including nitrates which are immediately taken up by the plant, ammoniacal nitrogen which provides a sustained source of nitrogen and nitrogen from urea which releases gradually. Knowles says the product serves well for home owners, professional arborists, greenhouse and landscape contractors, as well as for large turf areas, fruit and field crops.

Normally, any standard hydraulic compression type of tank sprayer with compression gauge plus hose and feeding needles can be used for applying the material. Heller-Gro, according to Knowles, is compatible with most insecticides and is practical for foliar application. He suggests mixing it with "Wilt-Pruf" during transplanting in order to nourish leaves during this period of shock.

Results from a thorough root feeding will enhance tree growth

and health for two or three years according to Knowles. However, he suggests jet feeding every year to eighteen months. Foliar feeding must be made more often, and Knowles reports good success by using foliar feeding via a spray gun as a supplement to the jet feeding. Main advantages, he says of Heller-Gro, are complete solubility and the fact that it builds up no residues. It has proven equally valuable on greenhouse plants and for flowers and ornamental shrubs.

Heller-Gro is now owned by the Boyle-Midway Division of American Home Products Corporation and the professional sizes are being distributed solely by Knowles for them.

Now headquartering in San Leandro, California, Knowles proudly reports that 35 California cities are using the product exclusively in all phases of plant feeding, and that this is true with a number of leading tree care companies around the country.

Knowles distribution of Heller-Gro is national in scope and he attends many of the arborist oriented meetings throughout the country.

* Registered Trade Mark

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" 10c per word, minimum \$3.00. All other classifications 20c 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, two inch minimum.

BUSINESS OPPORTUNITIES

FIVE HUNDRED Acre farm ideally suited for sod production. Seek farmer with sod growing experience and equipment or capital to participate. David deGraff, Williams-town, New York 13493. Phone 315 964-2214.

State Regulations Vary on Landscape Contracting

A recent survey by the Associated Landscape Contractors of America, Inc. has indicated that few states regulate their landscape contracting business.

Some states have registration requirements for all types of contractors but do not pinpoint

the *landscape* contractor.

In those states that do require licenses for contractors, regulations run the gamut from almost non-existent to somewhat strict, according to the ALCA survey. Most states, however, do not ask for special qualifications or deem it necessary for applicants to pass examinations.

In Texas, for example, contractors must have certificates, according to the state nursery law; but no tests or specific requirements are needed. In Minnesota licenses are required for spraying and dusting plants. California, however, requires four years of experience in landscape contracting before the issuing of a license; an examination is also necessary.

Arizona's newly enacted law requires a license. Applicants must pass an examination, be of good reputation, have not been refused a license or have had one

Advertisers

INDEX TO ADVERTISERS

Asplundh Tree Expert Co.	55
Elanco Products Co.	30, 31, 32
Finland Turf Cut Div., Finneyfrock's	44
Friend Manufacturing Corp.	45
Hercules Incorporated	11, 4th cover
International Harvester Co.	14, 15
Jacklin Seed Co.	3rd cover
Master Sprayers, Inc.	23
McCulloch Corp.	5
Merion Bluegrass Association	4
John Nunes Mechanical Harvester Co.	2nd cover
Nursery Specialty Products Co.	19
Robert B. Peters Co.	21
Sabre Saw Chain, Inc.	17
S & D Products Co.	35
Stanford Seed Co.	21
Universal Metal Products Div. Leigh Products, Inc.	25
West Point Products Corp.	34

revoked, have not gone bankrupt within the preceding year and must show eligibility for workmen's compensation insurance.



Another Asplundh first... aerosol inhibitor tree paint.

For fast year-round applications try Asplundh's inhibitor fortified tree paint. Using the newly developed one percent NAA formulation, it is now packaged in a proven all-weather aerosol applicator. This spray method will greatly increase production compared to old fashioned brush-on applications thus reducing unit cost. So when you look for reliability, economy and beauty look to Asplundh.

ASPLUNDH



ASPLUNDH TREE EXPERT CO.
505 YORK ROAD, JENKINTOWN, PENNSYLVANIA 19046

For More Details Circle (119) on Reply Card

Insect Report

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

Turf Insects

APHIDS

(*Capitophorus* spp.)
(*Aphis* spp.)

Utah: Extremely numerous on rabbitbrush at Bountiful, Davis County, and Logan Green Canyon, Cache County.

SUGARCANE BORER

(*Diatraea saccharalis*)

Florida: Damage heavy on pampasgrass at Samsula, Volusia County, in early October. Healthy plants reduced from 180,000 to 60,000 in 30-acre field during one year; 50 percent of reduction due to "knocking back" of plumes.

HAIRY CINCH BUG

(*Blissus hirtus*)

Pennsylvania: Some damage to Greene County lawns; adults averaged about 2 per square foot.

SOUTHERN CINCH BUG

(*Blissus insularis*)

Texas: Heavy in lawns in Bastrop, Travis, Guadalupe, Comal, and Bexar Counties week ending October 11.

VAGABOND CRAMBUS

(*Crambus vulvivagellus*)

Tennessee: Moths first collected in light traps September 19 in Knox County; very common around lights.

A WHITEFLY

(*Aleurocybotus occiduus*)

Arizona: Controls in progress in Bermudagrass seed fields at Yuma, Yuma County.

Insects of Ornamentals

MEXICAN MEALYBUG

(*Phenacoccus-gossypii*)

California: Heavy on pelargonium and fuschia nursery stock in Grass Valley, Nevada County.

AN ERIOPHYID MITE

(*Eriophyes gardeniella*)

Florida: Collected on gardenia in nursery at Monticello, Jefferson County, October 3. This is a new Florida Department of Plant Industry county record.

A PIT SCALE

(*Cerococcus deklei*)

Florida: All stages general and moderate on all 2,275 nursery hibiscus plants at Coral Gables, Dade County.

Tree Insects

A CONIFER APHID

(*Cinara pinea*)

Maryland: Collected on Scotch pine in nursery at Westminster. Carroll County, May 27, 1968. This is a new State record.

BLACK TURPENTINE BEETLE

(*Dendroctonus terebrans*)

Texas: Outbreak resulted from following in descending order: Logging, lightning, road building, and fire. Outbreaks reported in Houston, Montgomery, Orange, Panola, San Jacinto, Shelby, Trinity, and Walker Counties. Treated over 1,000 trees and salvaged many others.

FALL CANKERWORM

(*Alsophila pometaria*)

North Dakota: Males and females evident on forest and shade trees in Fargo area, Cass County.

A CECIDOMYIID MIDGE

(*Cecidomyia* sp.)

Colorado: Damage severe on ponderosa pine windbreaks in areas of Yuma, Yuma County, Platner, Washington County, and Rush, El Paso County.

EUROPEAN PINE SHOOT MOTH

(*Rhyacionia buoliana*)

Oregon: Results of fall survey in Umatilla County as follows: Hermiston and vicinity—2,315 trees inspected, 373 infested, 377 suspected; Umatilla—239 trees inspected, 3 infested; McNary Dam—130 infested. Infested mostly Scotch or mugho pines. **Ohio:** Severe damage found on 8-foot red pines in Warren County October 4; infested 30-40 percent of terminals.

NANTUCKET PINE TIP MOTH

(*Rhyacionia frustrana*)

Texas: Extensive damage to shortleaf and loblolly pine saplings in northeast area during summer. Mined nearly all tips over much of 2,000-acre block near Clarksville, Red River County. Heavy infestations and loss of growth on naturally reseeded pine on old fields. Heavy damage also in Gregg, Shelby, and Upshur Counties.

Dow Chemical Cuts Price of Dowpon Grass Killer

Dow Chemical Co., Midland, Mich., recently announced a reduction in the price of Dowpon Grass Killer—also known as dalapon, a 2,2-dichloropropionic acid generally applied by air or ground spray equipment.

The price cut, totaling about 27 percent, is the result of production costs due to new technological methods and increased plant capacities, according to Dow.

Plans for additional production efficiencies suggest the possibility of further savings on Dowpon in future years, Dow officials revealed.

Trimmings

Gypsy Moth Joy Killer. Spread of gypsy moth infestation via Christmas trees is an ever present threat on the Eastern Seaboard. Federal and state quarantines are in effect and pretty well thwart spread by commercial trees. But noncommercial movement remains a hazard. Better for all concerned that private individuals be prohibited from moving trees across state lines without a permit. Thousands of shade trees are defoliated annually and many killed by gyp caterpillars. Hunters carrying home souvenir trees need to be made aware that Christmas closely follows the gyp egg-laying season and that a single egg mass contains from 100 to 1000 pests.

* * *

Aerial Applicator Students. We read that Vincennes University will start a new aerial applicator training program this fall. Bill Spence of the University reports that the course will cover five semesters and is being offered in cooperation with the National Aerial Applicators Association. This has been one of the goals of the N-Triple-A for some time and points up the value of coordinated efforts through an organized association. Students will get on-the-job training along with classroom work. Primary flight courses and classes will feature the first year of instruction. Students will work in the industry during the summer and then continue formal training until completion of the course. Classes include chemicals and their use along with primary flight training.

* * *

In the News. Synthetic grass continues to get rave notices where it is being used for football fields. Most recent we've read are statements regarding the University of Tennessee's Tartan turf, a 3M product. Coaches say the main advantages of the \$200,000 installation are fewer injuries (probably because only quarter-inch cleats are used rather than the 3/4 inch cleats used on regular turf) and the fact that heavy rain does not particularly affect the field.

* * *

Repels Rabbits. Elton M. Smith of the Ohio State University reports a liquid formulation of thiram sold as Arasan 42-S has been very effective as a rabbit repellent. It can be brushed or sprayed on trees and plants. The U.S. Fish and Wildlife Service also recommends Z.I.P. for the same purpose. The latter also discourages deer.

Meeting Dates



Ohio Turfgrass Conference. Ohio Turfgrass Association, Sheraton Hotel, Cleveland, Ohio, Dec. 9-10.

Northeastern Weed Control Conference, Annual. Hotel Commodore, New York City, N.Y., Jan. 8-10.

Helicopter Association, Annual Meeting. Diplomat Hotel, Hollywood, Fla., Jan. 8-11.

New York State Arborists Association, Annual Meeting. Grossinger's, Grossinger, N. Y., Jan. 19-22.

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

Southern Weed Conference, Annual Meeting. Statler Hotel, Dallas, Tex., Jan. 21-23.

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

Associated Landscape Contractors of America, Annual Meeting. Half Moon Inn, Shelter Island, San Diego Bay, Calif., Jan. 22-25.

National Arborist Association, Annual Convention. Sheraton Hotel, Fort Lauderdale Beach, Fla., Feb. 8-13.

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

Lawn and Utility Turf Growers Course. Rutgers University, College of Agriculture and Environmental Science Campus, New Brunswick, N.J., Feb. 17-19.

Golf and Fine Turf Growers Course. Rutgers University, College of Agricultural and Environmental Science Campus, New Brunswick, N.J., Feb. 19-21.

Southern Turfgrass Association, Annual Conference. Sheraton-Peabody Hotel, Memphis, Tenn., Mar. 3-4.

Annual Fine Turf Conference. University of Massachusetts, High Point Motor Inn, Chicopee, Mass., Mar. 5-7.

Michigan Turfgrass Conference, 39th Annual. Kellogg Center, Michigan State University, East Lansing, Mich., March 12-13.

Ohio Scientist Discusses Home Lawn Care Fallacies

Fallacies concerning maintenance of home lawns were recently brought to light by Dr. R. R. Davis, associate chairman of the Department of Agronomy at the Ohio Agricultural Research and Development Center, Wooster.

Contrary to common belief, Davis said, close mowing in spring does not make grass spread. In fact, he revealed, close mowing reduces grass vigor and thereby decreases its ability to spread. Best mowing height, according to Research Center trials, is 2 inches for the average lawn, he said.

Another fallacy Davis attacked was the idea that grass should be left long for best winter survival. Long grass, he cautioned, actually increases thatch and may even increase disease problems. Center research indicates it's best to mow until growth stops, Davis said.

On lawn fertilization, Davis pointed out that slightly acid soil (pH 6 to 7) produces the best bluegrass. Both organic and inorganic fertilizers, used properly, foster improved growth, he said. Best time to fertilize is in the fall, although fertilizer should be applied whenever grass needs it, even during the summer.

Davis said that lawns should be watered as needed, anytime during the day that is convenient.

Fall is the best time to get rid of dandelions, according to Davis. Fall herbicide applications kill both old and new dandelions, done so at a time when desirable shrubs and trees are less susceptible to damage from herbicide drift. Spaces left by dandelions killed in the fall fill in quickly with grass the following spring, Davis said.

NO UGLY seed heads

with



**FYLKING
KENTUCKY BLUEGRASS**

In spring most lawn grasses sprout green and beautiful turf. Then an ugly problem arises. Seedheads begin to appear with gypsy abandon, turning the green scene into a jungle of wiry straws even sharp mowers fail to sever. This wire-like growth remains an eyesore.

You can always survey your lawns with pride if you grow 0217® Fylking Kentucky bluegrass. Fylking shoots up a spring abundance of new green leaves, never produces wiry stems and ugly seedheads. This sensation of the sod and seed industry is low-growing, always mows smooth and thrives on close cutting. Fylking produces thicker, greener turf which is more disease, weed and wear-resistant than any variety yet (proven by 10 years of international testing — rated best obtainable by turf authorities).

Turf-forming qualities make it possible to lift sod in 110 days.

You'll never have ugly seedheads if you specify 0217® Fylking Kentucky bluegrass. See your seed distributor. For information or names of authorized distributors, write Jacklin Seed Co., Dishman, Wash. 99213.

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