FOR SMALL JOBS — 5'4'' unit puts seed in top $\frac{3}{4}''$ of soil, the ideal depth for closely controlled moisture and growth conditions.



FOR BIG JOBS — 8' and 10' seeders tuck seeds at ½" depth, as recommended for parks, golf courses, free ways, sod farms and other large acreage seedings where natural moisture and growth conditions prevail.



Why bury or waste lawn seed when you can lay up to 10-foot carpets of lawn per pass with

BRILLION LANDSCAPE SEEDERS!



ALSO AVAILABLE — NEW SMOOTH-WHEEL ROLLERS for smoothening humps and winterheaves in established lawns. Ideal for parks, stadiums, golf courses, institutional, and turn-pike turf. In 9', 10'6" and 12' single rollers and triple gang models up to widths of 20'.

Only Brillion enables you to choose the seeder that fits your operation—in 5'4", 8' and 10' seeding widths. And all are precisely built and calibrated to tuck your seed accurately and uniformly in the top $\frac{1}{4}$ " or $\frac{1}{2}$ " of the soil for fast, complete germination and healthier growth.

A Brillion crushes the small lumps, presses down small stones and gently packs the soil into a firm, clod-free seedbed — in one operation. One man can seed up to 50 acres per day. No extra equipment or operations are needed for seedbed conditioning.

Large hoppers minimize re-fills. And you can hug fences, trees and building foundations to keep hand broadcasting to a minimum. Options include acreage meters and transport wheels for the 8' and 10' seeders. So to seed more lawn and save more money, include a Brillion Landscape Seeder in your budget. Send coupon for complete information.

Brillion
Drillion_

Please send me infor	RKS, INC., Dept. LS-59-12 mation on:		
New 8' Seeder New Smooth-Whe	New 10' Seeder	○ 5'4" Seeder	O Name of nearest Brillion dealer
Name			
Address			

REST SERVICE • RESCUE SQUADS • RENTAL YARD MANAGERS • TRENDSCAPE CONTRACTORS • LIGHT & POWER COMPANIES • GAS CONACK MAINTENANCE CREWS • FIRE DEPARTMENTS • CONSTRUCTION RK SUPERINTENDENTS • FOREST SERVICE • RESCUE SQUADS • RI

On July 1, 1965, the new McCulloch MAC-10 Series made every other lightweight chain saw overweight and out-of-date

MAC 1-10: The world's lightest direct drive chain saw: 10½ lbs.*
MAC 2-10: World's lightest automatic oiling chain saw: 10¾ lbs.*

The new McCulloch MAC-10 Series chain saws are ideal for industrial and municipal use, whether it's intermittent emergency cutting or steady day-in, day-out operation. Because of their exceptional light weight and simplicity, personnel can be quickly trained in their use. They require a minimum of space on emergency and service vehicles, yet can prove to be the most valuable tool at hand in many situations. No other lightweight chain saw gives you this combination of features:

Automatic Oiling: The MAC 2-10 features completely automatic chain oiling for longer bar and chain life plus a separate manual system for extra oil when needed. McCulloch Dependability: New concepts reduce parts by up to 30%, yet the MAC-10's retain all the famous McCulloch performance, features and dependability. Extended Working Life: Unlike some others, MAC-10's cylinders can be rebored and fitted with new pistons for years of extra life. With ball and needle bearings throughout, every working part on the MAC-10's is cast and machined from only the finest steels and alloys. Longer Running Time: With oversize oil and fuel tanks standard on the MAC-10's, you can cut as long as most big saws. New engine design and single-jet carburetion cuts fuel consumption as much as 12%. Use of McCulloch oil at a 40:1 gas/oil mix provides even more economy and virtually smoke-free operation. Power For Fast Cutting: McCulloch's advanced engineering puts more usable power into MAC-10 engines. Light weight doesn't mean under-powered. Fast, Reliable Starting: The MAC-10's fingertip primer and exclusive idle governor mean fast, sure starts. For added convenience, MAC-10's feature right-hand starting. Runs In Any Position: No matter what position

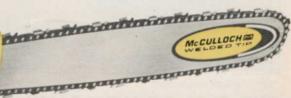
you have to cut in, you get full cutting power from a MAC-10. The idle governor allows a smooth idle, without stalling or sputtering.

Pick The One That's Right For You!

MAC 1-10: Complete with 12", 16", 20" or 24" McCulloch guide bars, plus new long-wearing chain for all general purpose cutting jobs.

MAC 2-10: Same as MAC 1-10, plus automatic chain oiling, spark arrestor and muffler combination, plasticized handle frame, and rubber pistol grip insert.

Find your McCulloch dealer in the Yellow Pages, or for a full-color catalog write McCulloch Corporation, Dept.WT&T. 6101 W. Century Boulevard, Los Angeles, Calif. 90045.



McCULLOCH M





From The R. H. BOGLE Company comes the versatile DRY weed and grass killer with lasting power—BO-RID® a new name for an old & respected name in chemical herbicides

WEED CONTROL?

- Ends the hazard of weed-spread fire.
- · Exposes weed-hidden dangers.
- · Improves work safety.
- · Eliminates costly weed-cutting.
- · Drives vermin away.
- Improves appearance, sanitation, and drainage.
- Reduces metal corrosion and wood decay.

DRY WEED CONTROL?

- No mix, no mess, no spray, no expensive equipment.
- No fire hazard; no corrosion, no vermin.
- · High residual action.
- · Non-selective; kills all.
- · Easy to apply and store.
- No metal corrosion and wood decay.

BO-RID° DRY WEED CONTROL?

- Controlled quality, dust free, low cost.
- White pellets cling to ground, assure uniform distribution.
- Regional formulation, corrected for soil, vegetation, rainfall and season.
- Standard of application rate 200 lbs. per acre (1 lb. covers 218 square feet).
- Proven effective—non-specific —controls all vegetation.





FOR THESE RESULTS!.



*One of fifteen formulations

THE R. H. BOGLE COMPANY ALEXANDRIA, VIRGINIA 22313 (703) 549-3506

MEMPHIS TENN. JACKSONVILLE, FLA.



Ryan Jr. Sod Cutter works fast. Cuts sod clean and even, 12" wide, up to 21/2" thick.

Low-cost Ryan cuts 11 sq. yds. of perfect sod per minute

Rugged and easy-to-use, a low-cost Ryan Jr. Sod Cutter has become a "must-have" tool for anyone working with turf. Propels itself, maneuvers easily, gives you up to 11 sq. yds. of perfect sod per minute.

Does many jobs. Strips dead sod, cuts fresh replacement sod fast. Optional blades available for laying flexible pipe (see photo below), edging, tilling, stripping, etc.



New "Mole" Blade attachment pulls flexible pipe, tubing or cable underground and continuously lays it at a depth adjustable to 7". Oneman method is fast, economical, almost invisible. Ideal for installing sprinkling systems, gas lines, telephone cables.

WRITE for illustrated literature on the full line of Ryan Turf Equipment . . . golf-course-proved, golfcourse-approved. Aerators, Renovators, Vertical Mowers, Spreaders, Vibratory Rollers, Sod Cutters and Sod Rollers. Get details today!



COMPANY

2055 WHITE BEAR AVE., ST. PAUL, MINN. 55109

WEEDS TREES and TURF FORMERLY WEEDS AND TURF

December 1965 Volume 4, No. 12

Features:
How to Sell and Lose Weed Control Jobs 9
Wild Garlic Control in Bermudagrass Turf By S. W. Bingham10
1965 Index of Articles
1966 Suppliers Guide
Southern Turf's 300 Acres Produce Sod for Golf Courses as Far Away as Japan, India By Pauline T. Stephens
Northeastern Weed Control Conference Observes 20th Anniversary at New York Meeting, Jan. 5-7
Broad Scope of Turf Knowledge Brought Into Focus as 2500 ASA, CSSA and SSSA Members Meet for 57th Time
Nematode Diseases, Weed Control on Program of North Carolina U. Pesticide School, Jan. 10-11
Departments:
Editorial: Are They Necessary?
Meeting Dates
Classified Ads
Frimmings

JAMES A. NELSON Editor and Publisher

DONOVAN E. HENDRICKS Staff Biologist

> MICHAEL I. LAH, JR. Production Manager

D. BUNKIN
Circulation Supervisor

Advertising Representatives
National Headquarters
1900 Euclid Avenue
Cleveland, Ohio 44115
Phone: Area Code 216+771-4169

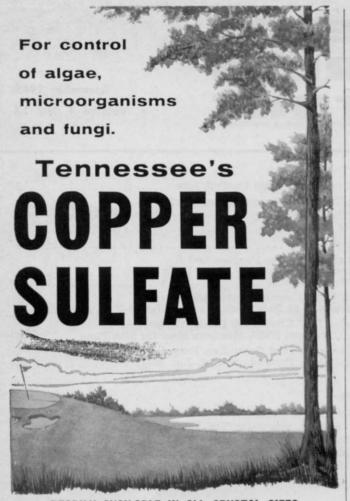
Chicago 60601
Peck & Billingslea, Inc.
185 North Wabash Ave., Suite 1809
Phone: 312+DEarborn 2-0292-93

New York City 10017 Billingslea & Ficke 420 Lexington Avenue Phone: 212+532-1632

WEEDS TREES AND TURF is published monthly by Trade Magazines, Inc. Executive, editorial, and advertising offices: 1900 Euclid Ave., Cleveland, Ohio 44115. Publication office: Corner of East North St. and Cadwallader St., Fostoria, Ohio. Send all correspondence to WEEDS TREES AND TURF, 1900 Euclid Ave., Cleveland, Ohio 44115.

Single Copy Price: 50 cents for current issue; all back issues 75 cents each. Foreign \$1.00. Subscription Rates: U.S. and possessions, 1 year \$3.00; 2 years \$5.00. All other foreign subscriptions, 1 year \$4.00; 2 years \$7.00. Change of Address: Three weeks advance notice is necessary for change of address. Both old and new address must be given. Post Office will not forward copies. Third Class postage is paid at Fostoria, Ohio.

Contents of this Issue © Trade Magazines, Inc., 1965



READILY AVAILABLE IN ALL CRYSTAL SIZES

- Large Crystals
- Medium Crystals
- Granular Crystals
- Snow Crystals
- Powdered -instant dissolving



For your free booklet on the use of Copper Sulfate in this application, a quotation or the name of your nearby distributor, contact

INDUSTRIAL CHEMICALS MARKETING DIVISION

TENNESSEE CORPORATION

44 BROAD, ATLANTA, GEORGIA 30303 TWX 810 751-3147 PHONE (404) 523-5024 TELEX 05-42374

Are They Necessary?

One of the most common complaints we hear is that there are just too many meetings, conventions, and conferences to go to. This objection is particularly strong among companies which offer a wide variety of services in the vegetation maintenance and control field. Alert management in such firms *must* keep up to date on all the latest developments in each of the areas they service.

The very complexity of weed control, tree maintenance, and turf work, including the wide geographical differences due to climate, temperature, location, etc., appears to leave no other choice than to hold special interest meetings for special interest groups.

The multibillion dollar nonfarm vegetation management field is big business, one requiring specialization in each phase of its operation. This is an age of specialists. Larger companies have technically trained experts for each segment of their work. Small companies divide such responsibilities among fewer men, but even here there is some specialization.

Actually, the score or more of meetings in various sections of the country on particular subjects is probably a blessing in disguise. If there were only two or three "national" meetings a year, almost the entire technical and/or managerial staff of a company would feel it had to attend, and there would be no one left to "mind the store."

We have attended national conventions and technical meetings in which there are concurrent sessions. Nothing is more frustrating than to want to be two places at once. The only answer is either to bring several people to cover all sessions, or pass up those you would really like to hear in order to sit in on one which you decide, rightly or wrongly, is most important.

The need for regional and sectional meetings in the vegetation management field is probably more acute than in any other. The limited number of national conventions we do have are aimed primarily at either management or technical staffers, and their programs are mostly arranged so each delegate can attend the sections he wants to.

This is a complicated business and we can take our hats off to leaders of those dedicated groups who stage special meetings to discuss specialized problems in depth which would otherwise be impossible at a once-a-year convention.

WEEDS TREES AND TURF is the national monthly magazine of urban/industrial vegetation maintenance, including turf management, weed and brush control, and tree care. Readers include "contract applicators," arborists, nurserymen, and supervisory personnel with highway departments, railways, utilities, golf courses, and similar areas where vegetation must be enhanced or controlled. While the editors welcome contributions by qualified freelance writers, unsolicited manuscripts, unaccompanied by stamped, self-addressed envelopes, cannot be returned.



REASONS
WHY
YOU SHOULD
USE
BAIRD & McGUIRE

MALATHION

EXPERIENCE-TESTED FORMULATIONS

- 1. HIGHEST KILL-POWER
- 2. LOWEST COST
- 3. EASY TO APPLY
- 4. LOW TOXICITY & LOW ODOR
- 5. MULTIPLE INSECT CONTROL

BAIRD & McGUIRE puts maximum kill-punch plus economy into their experience-tested Malathion formulations . . . PCO's have a wide choice of 50% emulsifiable, 5 lb. emulsifiable concentrate, 25% wettable powder and 90% solutions that are easy to apply (spray—granular—dust) with low toxicity, low odor, for indoors or outdoors . . . these formulations will solve all your mosquito and other insect control problems . . .

BUY FORMULATIONS OF EXPERIENCE . . . BUY BAIRD'S

Write today for complete products price list.

BAIRD & MCGUIRE

HOLBROOK, MASSACHUSETTS



CREATORS AND COMPOUNDERS OF THE FINEST IN CLEANERS AND DISINFECTANTS SINCE 1910



above: the Solo Mistblower 5 H.P.—Only 27 lbs.

Here's SOIO in Action!

below: New Solo Junior 2½ H.P.—Only 15 lbs.

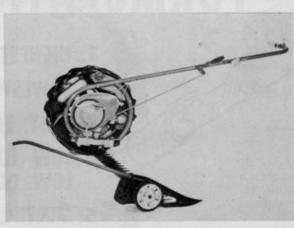




above: The All New Twin-Cylinder (both live)

Other models available from "Light-weight" to 91/2 H.P.

- For Contract Applicators
- · Arborists, Foresters
- Railway, Highway, Utility Rights-of-way Supervisors
- Nurserymen, Golf Course Superintendents



above: the Solo Motor Scythe 3½ Foot Cutterbar

for WEED CONTROL

TREE CARE

TURF MANAGEMENT

BRUSH CONTROL

■ Dealer Inquiries Invited!

(Distributors throughout America)

Solo Industries, Inc.

P. O. Box 128, Dept. 76

37-41 57th St.

Woodside, New York

SOLO Industrie P. O. Box 128, Woodside, N.Y.	Dept. 76	MAIL
Please rush me	e details on SOLO's pr	oven power machines for
☐ brush control	☐ turf maintenance	tree care.
Name		
Firm		Position
Firm		Position
Address	State	

How to Sell and Lose Weed Control Jobs



EVERYBODY has something to sell. Weed controllers have their services: how and where do they sell them? Here's the way L. A. Smith of Azo Chemical Co., Canton, Ohio, says he does it.

We send direct mail to the maintenance head of industrial plants we think need us. We talk directly about weeds, and no one can deny they are a problem, because nearly everyone has weeds. We ask for an invitation to survey the property and offer an estimate. This technique has proved successful.

Any company which owns property can be sold weed control service. As a sampling, we have on our books, such industry categories as: rubber company, steel company, drive-in movie, lumber company, builders' supply, oil company, power company, machine shop, pottery, housetrailer sale lot, wastepaper company, junkyard, heating contractor, trucking company, meat packing company, a cooper shop, and a feed mill.

What selling points do we use? We tell customers that

- Weeds are unsightly, bad public relations
- 2. Weeds are a fire hazard
- Weeds are an employee hazard
- Weeds are economically undesirable

To be more specific, here are some instances where weeds caused losses. A steel company discovered that steel stock stored in stockpile 'layout' yards rusted readily because weeds trap moisture near the ground. High lifts and carryall tractors could not locate the proper stock quickly and had difficulty maneuvering in high weeds.

Weed removal, in the case just cited, prevented rusting away of steel stock, and saved much employee time because inventory numbers painted on the stock were clearly visible.

A wood-treating plant found that its wood was not curing as fast as it might because the curing lot was weed infested. Again weeds fostered moisture buildup and high humidity near the ground.

Railroads Need Service

Some railroad union groups demand weed control in the interest of safety. There is danger of men working on or near trains slipping on wet weeds. Their shoes do not grasp steel footholds on trains when their feet are wet. High weeds also hide such dangers as broken glass, jagged metal, and nails in boards.

For some reason weeds tend to collect debris. People throw trash into weeds because it will be out of sight. Many people think twice before littering a well-kept ground around an industrial plant or office.

There is an interesting facet of the weed control business, which I humorously call 'How to Lose Accounts.' Strangely enough, the easiest way to lose an account is to do a good job. You maintain the grounds of a plant in good order for a season. Then when budget time comes around, the head of maintenance,

with his record of costs in hand, takes a look out his window and sees no weeds. Since cutting costs is what any business is justifiably interested in, you get cut out of the budget for doing a perfect job of weed control.

Actually, this results from an incomplete selling job. Your sales message must continue to convince a plant manager that without your service, his plant will again be overgrown with weeds, which it will. It would be wrong to suggest that weed controllers leave a patch of weeds conveniently outside the window of the plant manager so he would constantly be reminded of how good you are.

Accounts must get no less than a perfect weed control job, because that's what they're paying for. If we happen to lose an account because it cuts costs and we sold it incompletely, we're fairly certain we'll be called the following spring and get another contract, because we did conscientious work in the first place. There's really nothing else we can do about this kind of 'prodigal account' except try to keep from losing it through constant salesmanship.

Might Be Underbid

There is a second way to lose accounts: be underbid by another controller. We occasionally find that the 'winning' bid was so far under minimum chemical costs that the low bidder, in my opinion, could not possibly have done a decent job.

Upgrading selling and educat-(Continued on page 49)

WILD GARLIC

Wild Garlic Control

in Bermudagrass Turf

by S. W. Bingham

Associate Professor of Plant Physiology, Virginia Polytechnic Institute, Blacksburg, Virginia

L AWN weed problems are a common occurrence in most of our nation. In many instances these problems are associated with climatic and soil conditions, and with turf maintenance practices. Improper maintenance practices are the largest contributors to lawn weed troubles.

Solving weed problems is one of the most important phases of turf management. Early diagnosis or identification—is essential if the problem is to be corrected before it becomes too serious. The more difficult weed problems are usually associated with perennial plants that have underground means of reproduction.

Wild garlic and wild onion are serious perennial weeds found in many lawn and highway turf areas over the eastern half of the United States. Both weeds reproduce by aerial bulblets and underground offset bulbs. Wild garlic presents a special problem by producing both hard- and soft-coated bulbs. Some of the hard-coated bulbs remain dormant as much as three years in the soil.

Wild garlic shoots emerge in the fall but usually remain small for several months as winter arrives. Each bulb produces one stem which may have a leaf arising from the lower part of the stem. Leaves are round, hollow and grooved. Wild onion, on the other hand, often has two leaves arising from the bulb. They are flat and have a pithy center.

In established turf, wild garlic shoots develop from bulbs as deep as four

inches in the soil. For controlling onion or garlic in such areas, postemergence treatments with herbicides are usually necessary. Since some of the wild garlic bulbs remain dormant for extended periods and will sprout over a period of years, repeated treatments are required for good control.

In most areas the overwintering small shoots begin rapid development in March and eventually mature losing their vigorous growth rate by mid-June. The best time to apply herbicides for onion and garlic is in late fall and early spring. Treatments should be repeated twice each year, once on the small shoots in November and again as growth begins in March.

In experiments conducted in Virginia, a new herbicide, dicamba, and a new formulation of two older phenoxy herbicides have been compared to recognized standard treatments such as the low volatile ester of 2,4-D and maleic hydrazide. The oil soluble or water emulsifiable amine formulation (oleyl-1, 3-propylenediamine salt, or OPDS) of 2,4-D has the added safety features. Both of these phenoxy formulations are low in volatility but the OPDS form is the least volatile of the phenoxy compounds at 145°F. Soil surfaces facing the sun do reach this temperature in summer in Virginia and other areas further south.

An established bermudagrass turf area in Richmond, Virginia was selected for this experiment. Wild garlic shoots numbered about 40 per square foot and were in clumps ranging from 7 to 26 each. The treatments were applied in November and repeated in March each year.

All of the treatments used resulted in some degree of control of wild garlic and also other weeds present in the area. At least three applications of either 2,4-D (ester), 2,4-D (OPDS), dicamba, or maleic hydrazide were required to reduce bulb populations in the soil by 99%. Silvex (OPDS) gave only 84% control and appeared to be less effective than other treatments.

The response of bermudagrass turf to repeated treatments of these herbicides was very favorable. By effectively removing wild garlic and other weed competition, bermudagrass just about doubled its weight per unit area. The quality as well as quantity of turf plants was thus improved.

