Proxol[®] 80 SP_{Insecticide} Stops These Turf-Marauders Before They Start.

Sod Webworm Cutworm Armyworm White Grub









Each sod webworm larva chews up 20 square inches of turf during its average life-span of 20 to 40 days. The cutworm larva can devour up to 36 square inches. Multiply this by the average 300 to 500 larvae generated from each adult in a $1\frac{1}{2}$ to 3 week period and you begin to realize the damage these turf pests can cause.

But you can stop these insect predators *before* they start with Proxol 80SP, an organophosphate insecticide which provides fast, effective control of major turf and ornamental insects. Proxol 80SP acts as both a contact and stomach insecticide for combined quick-kill and residual activity.

With rising costs of maintenance and limited budget allocations, you need a sound pest prevention program of regular applications of Proxol 80SP to coincide with periods of peak insect activity.

For free color illustrated literature including lifecycles and spraying timetables, write:



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FREE catalog of grounds care equipment



Full-color catalog shows the full line of Gravely lawn and garden tractors with accessories for mowing, grounds maintenance, gardening, snow removal, and more. Unique tractors feature all-gear transmission that

Popular Science called "probably the world's most rugged small gear-type tractor drive."



Meeting Dates

Northern Michigan Turf Managers Association Meeting, Birchwood Farms, Harbor Springs, June 15.

Heart of America Golf Course Superintendents Association Meeting, Shawnee Country Club, June 15.

National Arborist Association First Management Seminar, O'Hare Hilton, Chicago, June 15-16.

Arizona Landscape Contractors Association Annual Meeting, Mountain Shadows, Scottsdale, June 16-20.

Metropolitan Golf Course Superintendents Association Meeting, Pelham Country Club, June 17.

Northern Ohio Golf Course Superintendents Association Meeting, Madison Country Club, June 17.

Missouri Association of Nurserymen Annual Convention, Stouffer's Riverfront Towers, St. Louis, June 20-22.

Rutgers Turfgrass Research Field Day, Adelphia Research Center, Adelphia, N.J., June 23.

Golf Course Builders Association Meeting, Fresno and Del Monte Lodge, Monterey, Calif., June 24-27.

Illinois State Nurserymen's Association Summer Conference and Annual Membership Meeting, Marriott Lincolnshire Resort, Lincolnshire, Ill., June 28-29.

Hi-Lo Desert Golf Course Superintendents Association Meeting, Del Safari Country Club, June 30.

Tri-State Golf Course Superintendents Association Meeting, Lakewood Country Club, Rockport, Ind., July 6.

Connecticut Nurserymen's Association Annual Summer Meeting, Holdridge Farm Nursery, Inc., Ledyard Center, Conn., July 6.

Wholesale Nursery Growers of America Summer Membership Meeting, Sheraton-Boston, Mass., July 10.

American Association of Nurserymen Annual Convention, Sheraton-Boston, Mass., July 10-14.

76th Annual Meeting of the American Society of Landscape Architects, Hotel de Coronado, San Diego, Calif., July 11-14.

Aquatic Plant Management Society Annual Meeting, Pier 66, Fort Lauderdale, Fla., July 11-14.

Golf Course Superintendents Association of New England, Joint Meeting with Rhode Island Golf Course Superintendents Association, Agawam Hunt, July 12.

Indiana Golf Course Superintendents Association Meeting, Tippecanoe Lake Country Club, July 13.

American Institute of Landscape Architects Regional Meeting, Santa Fe, N.M., July 15-17.

Rocky Mountain Golf Course Superintendents Association Meeting, Los Verdes Golf Course, July 15.

Midwest Association of Golf Course Superintendents Meeting, Exmoor Country Club, July 19.

Circle 116 on free information card 42 WEEDS TREES & TURF/JUNE 1976 Northern Michigan Turf Managers Association Meeting, joint with Michigan Border Cities Golf Course Superintendents Association and Western Michigan Golf Course Superintendents Association, Michigan State University, East Lansing, July 20.

Northern Ohio Golf Course Superintendents Meeting, Prestwick Golf and Country Club, July 20.

Greater Cincinnati Golf Course Superintendents Association Meeting, Fort Mitchell Country Club, July 20.

American Sod Producers Association Summer Convention and Field Days, Treadway Inn, Newport Harbor, R.I., July 21-23.

American Association of Nurserymen 21st Management Seminar, Colorado State University, Fort Collins, July 25-30.

Penn Allied Nursery Trade Show, Hershey Motor Lodge Convention Center, Hershey, Pa., July 27-29.

University of Massachusetts Third Annual Turf Field Day, South Deerfield Turf Station, South Deerfield, July 28.

Southern Nurserymen's Association Horticultural Trade Show, Marriott Motor Hotel, Atlanta, Ga., August 1-3.

Tennessee Golf Course Superintendents Association Meeting, Crockett Springs National Golf Course, Brentwood, August 2.

Tri-State Golf Course Superintendents Association Meeting, Evansville Country Club, Ind., August 3.

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IT CUTS 16" - 18" - 24" AND USES 48" - 54" - 56" - 60" PALLETS

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TU-TUF also ideal for ... Tees, Apron around greens, Weed Control, Ice Skating Rinks, Flower Beds, Under-layment of Golf Paths, Equipment Covers and Temporary Enclosures. For complete details and samples write ...

STO-COTE PRODUCTS, INC.

Circle 120 on free information card

Drawer #310 Richmond, Illinois 60071



A utility trailer has been introduced by Bock Industries. The bolttogether Bock Woody is almost 10 feet long and almost six feet overall when assembled. It has a 52 x 72 x 11 bed and a 1,000-pound load



capacity. Its tilting bed and hinged tailgate — which doubles as a loading ramp — makes it easy to manipulate which doubles as a loading ramp — makes it easy to manipulate cargo that could not be handled any other way.

Circle 701 on free information card

A new compact 85cc saw has been added to the Husqvarna line. The model 185CD is compact and easyto-handle, but with enough power to compete with big saws. It weighs 17 pounds. Its power-to-weight ratio is



an important feature, the manufacturer said. It is equipped with a silencer with a spark arrester plus an exhaust deflector and a double plate on the silencer that reduces surface temperature.

Circle 702 on free information card

All-purpose sprayer is the subject of a free data sheet published by Broyhill Co. There is a choice of roller, centrifugal or piston pump system options; three tank capacities; plus a full line of accessories including handguns, reels, booms and trailer wheels which adapt the basic sprayer to a wide variety of uses.

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Applications include high-pressure cleaning, trees and orchards and high-volume turf and grounds spraying.

Circle 703 on free information card

Rain Bird has developed a new hose connection vacuum breaker for use with portable hoses. It has a wide variety of indoor and outdoor applications, including swimming



pools, commercial and institutional hose connections, and general outside gardening hose bibs. Designated series HVB, the new vacuum breaker has a non-removable feature to prevent unauthorized removal from sill cock.

Circle 704 on free information card

A maneuverable new riding mower with an out-front cutter deck that mows a 72-inch swath has been introduced by the Turf Division of Jacobsen Manufacturing Co. Featuring rear-wheel steering, the new mower can turn in its own radius for optimum trimming tight-



up around trees and plantings, as well as cutting under shrubs and overhanging branches. Its twowheeled cutter deck carrier is articulated for mowing gullies, slopes and knolls. Four caster wheels and three rollers on the deck prevent scalping. During transport, the unit can climb curbs with no damage to deck components.

Circle 705 on free information card

A hand aerator has been introduced by Turf Maker, Inc. Called the Handi-Spiker, it features five spiking discs that penetrate to a dept of $1\frac{3}{4}$ inches on a seven-inch swath



without weights. The unit will not lift turf and the company said it is faster and more efficient than a rake in cultivating and loosening smaller compacted areas where large equipment is not suitable.

Circle 706 on free information card

A trencher that is a new improved version of the MK18 Digz-All, Inc. service line trencher has been introduced. Trenching depth capability ranges include from three to six feet, and width ranges from four to 12 inches. Digging speed is variable to 30 feet a minute.

Circle 707 on free information card

A spray boom that covers 84 feet has been introduced by FMC Corp.'s Agricultural Machinery Division after extensive field testing last year. Designed for mounting on 1,000gallon, high-pressure sprayers, the hydraulic boom features four folding sections which may be folded or elevated by remote control from the tractor cab. A fifth center section sprays directly behind the sprayer.

Circle 708 on free information card

18 DELICATE GREENS THAT NEED SPRAYING ... FAST.

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If you own a Turf-Truckster, you already have the power for a power sprayer.

An 18-hp Turf-Truckster with PTO, extension shaft, and compact spraying rig lets you spray delicate greens quickly and gently. But you can also spray

hard-to-reach rough, trees, bushes, foliage, fairways, or just about any area.

The 100-gallon polyethylene tank and spraying equipment mounts in either the short or flatbed/ box in minutes. Hook the centrifugal pumping system to the PTO, select either the folddown boom, boomless nozzle, or high-pressure handgun, and you're ready to spray.

There's no need for pressure regulators or other high maintenance parts. The TurfTruckster transmission teamed with the variable-speed governor assures uniform ground speed over varying terrain. And the accuracy of the metered spray can reduce chemical waste.

The end result is an all-purpose spraying rig that can handle

just about any spraying job you have . . . and handle it for years to come. Because, like every Cushman product, it's built for longevity as well

as performance. With other accessories, your Cushman can spike, dump, aerate, and top dress. Use

it. It's a lot more than basic transportation. It's a total turf-care system. Write for your Cushman Turf catalog today.

OMC-Lincoln, a Division of Outboard Marine Corporation, 6728 Cushman Drive, P.O. Box 82409, Lincoln, NB 68501

NEWS from page 9

Seay Is Elected President Of Golf Course Architects

Edwin B. Seay of Ponte Vedra Beach, Fla., was elected president of the American Society of Golf Course Architects at the group's 30th annual meeting at Del Monte Lodge in Pebble Beach, Calif., recently. He succeeds Geoffrey S. Cornish of Amherst, Mass.

Seay, who has been involved in the design of over 50 golf courses, is now working on projects in 15 states, Japan, the British West Indies, Central America and Europe.

Other officers elected at the meeting include William W. Amick of Daytona Beach, Florida, Vice President; Rees L. Jones of Montclair, N.J., Secretary; and Jack Kidwell, of Columbus, Ohio, Treasurer.

In addition to the officers and past presidents, other elected to the Board of Governors include: Arthur Jack Snyder of Phoenix, Gerald Matthews of Laingsburg, Michigan, Mal Purdy of Livingston, N.J.,

Richard Phelps of Lakewood, Colorado, Dave Gill of St. Charles, Illinois, Richard Nugent of Palatine, Illinois and Phil Wogan of Beverly, Massachusetts.

Mark Mahannah of Miami and William H. Neff of Salt Lake City were elected Fellows of the Society. which includes leading golf course architects from Canada, Mexico and the United States. Both Mahannah and Neff have been members of the Society for more than 10 years and have reached the age of 70.

Frank "Sandy" Tatum, Vice President of the United States Golf Association, told the architects that "your statements about the game are the ones that count most and the ones that last. You inscribe your views, thoughts and feelings about the game in the ground and those inscriptions will be there as long as the courses are there to tell the golfer what he has to accomplish to satisfy your view of the game.

"The courses you design, therefore, are relatively permanent inscriptions on and in the face of the earth that say what you think and

feel golf is all about and also whether and to what extend you understand, appreciate and indeed love it "

Pesticide Book Helpful For Taking State Tests

A new book especially helpful to anyone preparing for federal and state tests leading to certification or licensing as a pesticide applicator has been published by W. H. Freeman and Co., 660 Market St., San Francisco, Calif. 94104.

Pesticides: An Auto-Tutorial Approach was written by George W. Ware, professor and head of the entomology department at University of Arizona, Tucson.

With this volume, one can learn the fundamentals of pesticide chemistry; what the various pesticides are, how they work, and how they can be handled safely; and an appreciation for the value of twentieth century "super chemicals," the publisher said. The material has been selected for either self-study or classroom use.

please turn page

ECHO power blower makes tough clean-up Here's a versatile clean-up tool that works fast where brooms breeze! and rakes can't reach. Pack this lightweight portable on your back and pursue the toughest dirt, debris, leaf and snow removal tasks in stadiums, parking lots, construction sites ... anywhere. The Model PB-9 cleans up fast with an airstream that adjusts from a gentle breeze to a 200 MPH blast. Power comes from a 3.2 hp. gasoline engine that runs for 2 hours on 1/4 gal. of fuel. Sprayer, the duster and flame thrower attachments add more versatility on DM-9 model. Write for complete details CHAIN SAW DIVISION KIORITZ CORP. OF AMERICA 350 Wainwright Avenue Northbrook, Illinois 60062 (312) 498-1390

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Roundup moves through all parts of the plant; also, underground reproductive tissue.





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Roundup[®] Works!!

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Apply Roundup to plant leaves and stems above the ground.



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Circle 142 on free information card



"Without Laval Separators, we couldn't have opened for the winter season." Arthur B. Weaver, P. E.

SCASUL Arthur R. Weaver, P. E. Perini Land & Development Company West Palm Beach, Florida

"We were nearly finished with the North Course at the President Country Club. It was critical that we grass immediately to insure play by the coming winter season.

"But we had trouble with sand in our wells. So much sand was entering the electric solenoid control valve that our irrigation system wouldn't function.

"We called on the Laval Separator distributor in our area. They installed two six-inch 600 gpm industrial separators.

"The separators did their job. In fact they did so well, we even bought two more for our South Course. And we've had no further sand problems."

Laval Separators, from 3-4100 gpm, will remove up to 98% of all particles as small as 200 mesh (74 microns). If you've got a problem with sand, call on Laval.

For more information, write: Laval Separator Corp., 1899 N. Helm, P.O. Box 6119, Fresno, California 93727

Dept. 776 SEPARATOR

Circle 143 on free information card 48 WEEDS TREES & TURF/JUNE 1976

NEWS continued

Michigan Nurserymen Meeting Set for Saginaw

The 55th annual Michigan Association of Nurserymen convention will be at Saginaw Civic Auditorium February 15-17. Convention chairman is John Burdick, Burdick's Seed House, Saginaw.

Over 80 spaces have already been requested by exhibitors. The Michigan Association of Landscape Architects, Michigan Christmas Tree Association and Sod Growers of Michigan have been invited to hold their annual meetings in conjunction with the convention.

Workshops and sessions of general interest will be prepared utilizing personnel from Michigan State University Department of Horticulture and other members of the industry.

Illinois Superintendent Gives Thoughts on Show

Michael R. Bavier, superintendent at Inverness Golf Club, Palatine, Ill., took time in a recent issue of the newsletter of the Midwest Association of Golf Course Superintendents to voice his thoughts on the



Circle 131 on free information card

recent Golf Course Superintendents Association of America turfgrass conference in Minneapolis, among other things. Some of his thoughts are shared here.

"Our certification program is adequate," he said, "but would carry much more meaning if the pesticide seminar was handled in conjunction with it, which in turn might be valid for state pesticide licensing."

He also said the conferences concurrent sessions divide everyone up so that only a limited number of people attend each session.

"With so many speakers, one becomes frustrated trying to decide which one to attend," he said. "The cost of bringing out-of-town speakers to the conference is quite enormous, as you can well imagine. Are we missing the point of having some of our best people give talks and also of leaving a little time for the equipment show and for turf talk with fellow superintendents?"

Are Turfgrass Clippings Potential Animal Food?

There may be an important potential market in the future for turfgrass clippings as animal food sources, according to Dr. Al Turgeon of the University of Illinois.

Speaking at a meeting of the American Sod Producers Association earlier this year, Dr. Turgeon stressed present economics do not make this a realistic possibility, but that situations change, and it may be a thing of the future. He said Warren's Turf Nursery, Palos Park, Ill., pelletizes its clippings, and there are other possibilities like this.

He said lutein content is necessary for the poultry market, and crude protein content is necessary in the clippings for cattle-feeding. Mowing height and fertilization have effects on the protein content — with a lower cutting height, there is more protein available; and timing of nitrogen fertilization also affects the content. The type of nitrogen carrier also has an effect on the protein yield.

He also said there are presently studies going on using turf clippings as sheep feed.

please turn page

He's got it made in the shade.



KENTUCKY BLUEGRASS U.S. Plant Patent 3151

Another fine, quality-controlled product of Jacklin Seed Company.

Glade is a healthy little bluegrass with a higher level of resistance to powdery mildew and a better ability to grow under trees in up to 60% shade. Grows beautifully in open sun, too! Glade Kentucky bluegrass is your guarantee of physically pure and genetically true seed. You won't be plagued with annual bluegrass (<u>Poa annua</u>), bentgrass or short-awned foxtail when you plant Glade.

A selection from Rutgers University, Glade has improved resistance to stripe smut, leaf rust, and good resistance to leafspot. Nationally tested as P-29, Glade is one of the fastest germinating bluegrasses. It establishes quickly forming a dense sod and thick, low-growing, leafy turf of a beautiful, medium to dark green. Glade mixes well with fine fescues for higher acid soils and blends well with other elite bluegrasses, persisting in moderate shade when others weaken.

Specify Glade Kentucky bluegrass for use in full sun or in mixtures with fine fescues for shade. You'll find Glade at your local wholesale seed distributor.

Good supplies of new crop Glade seed available early August.



Circle 133 on free information card

NEWS continued

Lower Use Rates Announced For Elanco Herbicide Spike

The Environmental Protection Agency has accpeted reduced use rates of Spike, a herbicide for total vegetation control in non-cropland areas. It is manufactured by Elanco Products Co., Indianapolis, Ind.

The company recommends using the following reduced rates. In noncropland areas east of the Rocky Mountains treated the previous season with Spike or other residual herbicides, two pounds per acre, applied prior to or just after plant emergence, will control the following: annual bluegrass, Kentucky bluegrass, bouncingbet, wild carrot, common chickweed, crabgrass, croton, annual fleabane, foxtail, horseweed, milkweed, mullein, fall panicum, wild parsnip, pepperweed, pigweed, common ragweed, smartweed, sweetclover, Canadian thistle, and yellow woodsorrel. In addition to these weeds, it will control goldenrod and spurge at three pounds per acre.

In non-cropland areas west of the Rocky Mountains treated the previous season with a residual herbicide, 1.5 pounds of it per acre will stop fivehook bassia, cheat, cudweek, foxtail, prickly lettuce, milkweed, wild oat, bristly oxtongue, pigweed, plantain, annual ryegrass, saltbush, shepherdspurse, and witchgrass. In addition to these weeds, it will control the following when applied at two pounds per acre: buttercup, reed canarygrass, Russian knapweed, knotweed, mallow, mustard, western ragweed, yellow starthistle, telegraphweed, and Russian thistle. At three pounds per acre. Spike also kills barley, gumweed, puncturevine, alkali sida, and swamp smartweed.

Warren's A-34 at Kennedy

Robert Kennedy Memorial Stadium in Washington, D.C. was sodded in the spring of 1975 with Warren's A-34 Kentucky bluegrass, furnished by Princeton Turf Farms, Centreville, Md. A news story in the April issue did not have this information.



It opens wide for wide-spread trees and shurbs — the Big John Tree Transplanter. It's able to move up to 10" trunk trees with a 7,000-lb. root ball (tandem truck recommended).

Big John, with curved tracks, has an overall width open of only 12'8", allowing the machine to work between close trees. Its automatic latch and curved tracks allow no hinging of tracks and the complete operation is handled from the control panel. Big John's simple and strong design makes for a long lasting and maintenance-free machine. Large stabilizers hold machine for loading on soft ground.

FEATURES: Spoon-shaped blades, 360° leveling, simple construction, most parts standard.

SPECIFICATIONS: Height closed for transporting: 13'-13'5", width closed for transporting: 7'11", root ball width: 78", root ball depth: 54", blade travel: 63".

THE WORLD'S LARGEST PATENTED TREE SPADE Big John Tree Transplanter

For Further Information Contact: BILL LINDSEY Heber Springs, Arkansas 72543

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P.O. Box 608

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