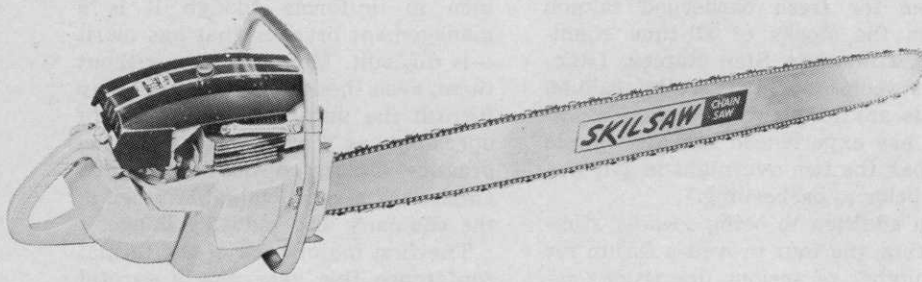
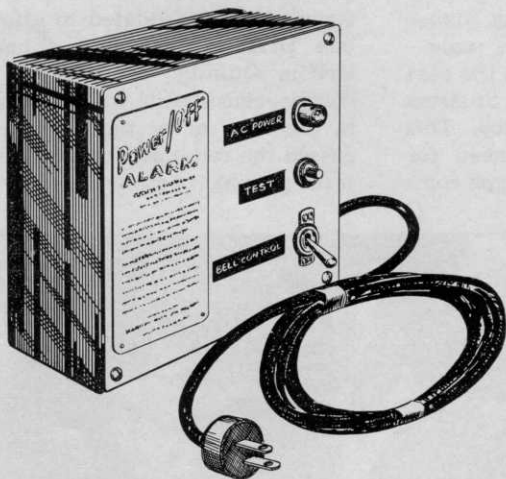


International Harvester Company, Chicago, has added four new pieces of equipment to broaden the application of its 15 hp. International Cub 154 Lo-Boy. The company has added the 3142 42-in. (left) and the 3160 60-in. rotary cutters to cut tall grasses where debris may be encountered. The other attachments are a rototiller with a 42" cut and a snow thrower with 24" auger and 180° swivel discharge chute to clean up to a 54" swath. For more details, circle (703) on reply card.

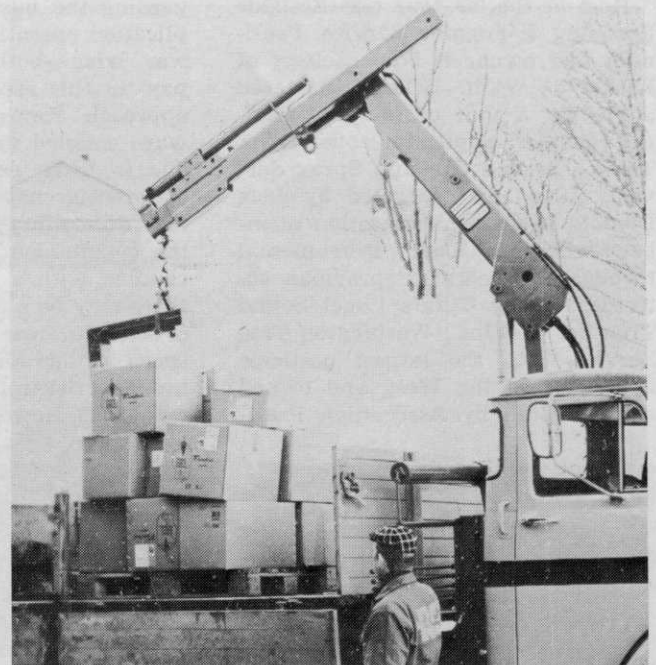
Papec Machine Company, Shortsville, N. Y., announces an automatic knife grinder to grind straight or spiral knives up to 38" long, including knives for wood chippers. Knife holders for all makes of straight or spiral knives are available. Length of carriage travel is adjustable from 8" to 38". The 10" cupped grinding stone is shaft-mounted on a 3 hp. totally enclosed, air-cooled motor, and turns at 1800 rpm., automatically advancing against knife at end of each pass. A mist generator continually sprays coolant on knife near point of contact with stone. The Model 25 Papec Knife Grinder occupies 5½' x 3½' of floor space, stands 4' high and weighs 585 lbs. For more details, circle (704) on reply card.



Skil Corporation, Chicago, claims "the world's most powerful" gasoline-powered chain saw. Model 1690 is an 8.5 cu. in. displacement unit with a 24-lb. dry weight, a 3-pint fuel capacity, and a conveniently located manual fuel primer. Bars and chains from 16- to 60-in. lengths are available. The 2-cycle, piston-ported engine has a 2-11/16 by 1½-in. bore and stroke, an automatic recoil starter, a waterproof, high tension magneto, and a fully enclosed carburetor. For more details, circle (707) on reply card.



Leeser Electrical Supply Co., Inc., Vineland, N. J., is producing a new portable alarm system which automatically warns of power failures by a battery-operated, loud bell sounding the alarm and continuing to ring until shut off. Known as "Power-Off," the system is encased in steel and has an "A.C. Power" bulb which lights up when unit is in operation. A test button and bell control lever complete the mechanism, which can be set on table, floor, or suspended by wire or rope. For more details, circle (708) on reply card.



HIAB Hydraulics, Inc., Wilmington, Del., introduces a light-weight, all-purpose loader having many features found in larger, heavier models. Called HIAB 2451, the 1,380-lb. unit has a 1½-ton lift capacity, and is designed for general freight handling, road and street work, oil refineries, agricultural and concrete plants. With a low parked height of 5' 3" above base level, the unit, when operating, reaches over 17' above the truck frame. It is fitted with a double acting outer-boom cylinder, ready-prepared mounting points, and can be fitted with various types of grapples and lifting tackle. For details, circle (709) on reply card.



Thickening agents and invert emulsions for custom applicators were discussed at the recent Northwest Pesticide Applicators meeting in Seattle. Panelists were, from the left, Dick Bailey, Amchem Products Co.; Jack Fisher, Wilbur Ellis

Co.; Bob Rhodes, Rhodes Chemical Co.; Jack Warren, Dow Chemical Co.; and Bill Pierson, Diamond Shamrock Chemical Co.

NW Applicators Gird for Pesticide Battle

Custom applicators of the Northwest U. S. proved again this year that group action can make things happen. Their association—Pacific Northwest Pesticide Applicators, Inc.—held its annual Spray-O-Rama with fringes added.

This year, a new wrinkle and highlight was a day-long tour of nearby operators preceding the formal sessions. Interest among association members making the tour was such that another is tentatively set for the '70 session in the Portland, Ore., area.

Host of the '69 tour was Eastside Spraying & Fogging Service. President and owner is John Beheynt of Kirkland, Wash. Beheynt chartered a bus for a tour of four outstanding custom applicator operations. These included Greenup Spray Service, owned and operated by Jack Daniels, a charter association member who has been instrumental through the years in sprayman activities; Harry Cline's Puget Sound Tree Service, Inc.; Washington Tree Service, Inc., the largest pesticide applicator in the West, and owned and operated by Association Presi-

dent Stan Raplee; and a final stop at Beheynt's own operation just outside Seattle.

Beheynt welcomed the group to his home for fresh barbecued salmon from the stocks of all-time champion fisherman Stan Raplee. (Raplee's recipe for barbecuing salmon beats anything this midwestern editor has experienced and it's simple—soak the fish overnight in salt water prior to barbecuing.)

In addition to being socially stimulating, the tour proved a forum for a number of serious discussions regarding the business of custom application operation. A prime subject was labor—both management and pay. In this area, the most popular approach seems to be an hourly wage coupled with a commission of one to three percent. Commissions apparently have both advantages and disadvantages. In cases where the commission is relatively high—coupled with a lower wage scale—there may be a tendency on the part of some foremen and crews to stress speed rather than efficiency. This invites criticism and the need for call backs. However, some type com-

mission plan seems mandatory in order to compete with trade groups for workmen.

Operators also find that keeping men in uniforms—though it is a management practice that has merit—is difficult. Men show up without them, even though the company may furnish the uniforms. A number of operators say they have dropped the practice. Others consider uniformed employees a most valuable asset to the company and industry image.

The first major area of the formal conference this year was a careful examination of the battle being waged against pesticide use. Art Edwards, editorial director of WEEDS TREES AND TURF magazine, reviewed current publicity and legislative moves which affect the industry.

He reviewed both pro and con arguments of the summer-long Wisconsin hearings related to efforts to ban DDT in that state. Then Dr. Griffin Quimby, an MD and toxicology consultant with experience in the field of pesticide usage, discussed the reliability of research and testing which attempts to stamp



Visitors toured four custom applicator operations in the area. Owners of three of them are above, left. From the left they are John Beheynt, Eastside Spraying and Fogging Service, Kirkland; Stan Raplee (outgoing president), Washington Tree Service, Seattle; Jack Daniels, Greenup Spray Co., Seattle. They're chatting with Lew Sefton, Lew Sefton



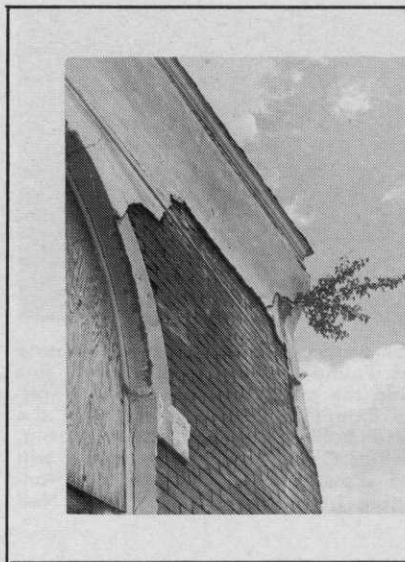
Spray Co., Portland, Ore., and newly elected president. The three men visiting in Raplee's chemical warehouse are, from the left, Charles Seibold, Major Spray Service, Portland; Jerry Green, Green Spray Service, Aumsville, Ore.; and James Pennell, extension entomologist, Washington State University, Puyallup.

pesticides as a real and present danger to man and his environment.

Dr. Quimby, though he did not so state publicly, apparently believes that tests—particularly tests relating to DDT residues—made two to five years ago may prove to be extremely misleading and thus are unreliable as a base for determining the future of pesticide use.

Other features of the two-day formal program included a panel discussion by five industry representatives on the merits and characteristics of thickening agents and invert emulsions, a review of ornamental plant diseases by Dr. Arlen D. Davison of the Western Washington Research and Extension Center at Puyallup, and a small business management seminar by R. Keith Martin, director of the Management Systems Department at the University of Washington. Extension entomologist Dr. James Pennell discussed ornamental insects and their life cycles.

Among suppliers demonstrating chemicals and equipment was veter-



A Tree Grows in the Darndest Place

Though a tornado ripped 4,000 trees out of Topeka, Kan., in 1966, it apparently planted a few seeds. One took root in Four Square Church. The building was damaged beyond repair, so the Rev. Bob Fisher took his congregation to another building about six blocks north.

eran nurseryman and distributor A. H. Hembree, Spokane, Wash. He displayed a wooden Hardie spray tank which attracted considerable attention in this day of stainless steel and fiberglass tanks. Hembree discussed tank construction and the fact that for some materials it is

superior and eliminates corrosion problems.

New officers for 1970 are: Lew Sefton, Lew Sefton Spray Co., Portland, Ore., president; George Harrison, Tacoma, Wash., vice-president; and Charles Seibold, Major Spray Service, Portland, secretary-treasurer.

Insect Report

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



TURF INSECTS FALL ARMYWORM

(*Spodoptera frugiperda*)

ALABAMA: Damaged some Coastal Bermudagrass fields in several counties including Bibb, Marengo, Dallas, Conecuh, and Mobile. Some fields destroyed in Mobile County where populations extremely heavy. OKLAHOMA: Heavy; damage severe on Custer County lawns. Moderate to heavy on Washita County grass.

TWO-LINED SPITTLEBUG (*Prosapia bicincta*)

ALABAMA: Heavy on centipede grass lawns in areas of Tillman Corner and Cypress Shores Community of Mobile County. Nymphs and adults increased on Bermudagrass and other lawns in Lee and Macon counties.

SOD WEBWORMS (*Crambus spp.*)

WEST VIRGINIA: Moderate to heavy damage in many lawns throughout Kanawha Valley in Kanawha, Putnam, and Cabell counties.

INSECTS OF ORNAMENTALS

A PSYLLID (*Psylla uncatoides*)

ARIZONA: Collected on acacia at Avondale, Maricopa County. This is a new state record.

A PIT SCALE (*Asterolecanium arabidis*)

CALIFORNIA: Heavy on Japanese pittosporum shrubs at Hanford, Kings County.

CALIFORNIA RED SCALE (*Aonidiella aurantii*)

CALIFORNIA: Heavy on euonymus at Cutler, Tulare County.

TREE INSECTS

ELM LEAF BEETLE (*Pyrrhalta luteola*)

TEXAS: Heavy at Borger, Hutchinson County. NEW MEXICO: Serious on Lea County elms. WYOMING: Damage heavy to elms at Wheatland, Platte County.

A LEAFHOPPER (*Alebra Albostriella*)

CALIFORNIA: Adults heavy on American elms at Mt. View Cemetery, Oakland, Alameda County. First record of damage. This is first evidence of pest since specimen collected many years ago in Yosemite National Park, Mariposa County.

NANTUCKET PINE TIP MOTH (*Rhyacionia frustrana*)

FLORIDA: Larvae and pupae of this and possibly another species of *Rhyacionia* heavy in 140 acres of 2-year-old loblolly pine near Chiefland, Levy County.

MIMOSA WEBWORM (*Homadaula anisocentra*)

PENNSYLVANIA: On mimosa in Bucks County September 1. This is a new county record.

ASIATIC OAK WEEVIL (*Cyrtopistomus castaneus*)

MISSOURI: Adults collected in Butler, Wayne, and Reynolds counties for new county records. Some light to moderate leaf feeding in Butler County.



That piece of paper is worth \$10,000! It's for turfgrass research at Ohio State University. The grant by the Ohio Turfgrass Foundation was announced this spring. Representing the Foundation and making the presentation to Roy M. Kottman, Dean of the College of Agriculture and Extension Director, are, from the left, Gene Probasco, treasurer; Tom Evans, second vice-president; Richard Craig, first vice-president; and Robert Rieman, president. Ohio turfgrass specialists will conduct their annual turfgrass conference and show, Dec. 1-3, at the Sheraton-Cleveland Hotel, Cleveland. Details are available from Robert Miller, 1827 Neil Ave., Columbus 43210.

20 Speakers Scheduled For Ohio Turfgrass Show

More than a thousand persons are expected for the 1969 Ohio Turfgrass Conference and Show Dec. 1-3. The site is the Sheraton-Cleveland Hotel in Cleveland.

Educational sessions and exhibition of turfgrass equipment and supplies are featured. Seventy-one companies have reserved the available exhibit space.

The educational program consists of half-day sessions on turfgrass diseases, broadleaf weed control, soil and air temperatures and their effect on turfgrass production, grass mixtures and blends, and grounds beautification.

Twenty speakers will discuss 22 subjects. Out-of-state participants include nationally known turfgrass specialists, such as Dr. C. R. Funk, Dr. Clinton Hodges, Lee Record, J. C. Holmes, James Latham, Noel Jackson, and Dr. Roy Blaser.

Last year's program attracted 950 persons from 22 states and Canada.

New Product, Plant for Wade

R. M. Wade and Company, Portland, Ore., manufacturer of sprinkler irrigation equipment, will expand facilities to manufacture a new automatic mobile farm irrigation system.

The company, founded in 1865, has acquired a 20-acre tract in Tualatin, Ore.

LETTERS TO THE EDITOR

Needed: Chart of Turf Diseases

I want to take this opportunity to compliment you on the service your magazine renders to the industry. Many of your articles are helpful in convincing clients of the need for equipment, fungicides, herbicides, etc. One thing we need now is a one-sheet color picture comparing Brown Patch, Dollar Spot, Cottony Blight and Pythium to stop confusion in initial fungus identification. Keep up the good work. — **FERDINAND GARBIN**, Golf Course Architect and president of the American Society of Golf Course Architects, Export, Pa.

EDITOR'S NOTE: One of the best color charts on turf diseases

is available by writing Paul Florence, O. M. Scott and Sons Co., Marysville, Ohio 43040.

* * *

WE APPRECIATED your excellent pictorial and written account of the activities of the recent American Sod Producers Summer Field Day. It certainly gave me a better insight as to what had transpired even though I was present.

Your editorial comment also was appropriate and timely. It, together with the coverage of the field day, should be instrumental in generating interest in the organization.—**HENRY W. INDYK**, Executive Secretary, American Sod Producers Association.

Trimmings

A CONGO PERCH is reported to be a voracious eater of *Hydrilla verticillata*, a rapidly spreading weed pest in the southeastern part of the country. Rep. Bill Fulford of Orlando reported to the Florida House Conservation Committee that the fish is perhaps a means of biological control of the water weed.

The fish has performed well in carefully controlled tests, but Game and Fresh Water Fish Commissioner Earle Frye said his department doesn't yet know what would happen if the fish were turned loose in natural waters.

* * *

HERE'S AN ITEM for your "defense of pesticides" file. Paul Voykin, superintendent of the Briarwood Country Club at Deerfield, Ill., comments in his new book, "A Perfect Lawn the Easy Way," that: "Fifty times more deaths are caused by medicines than by pesticides. The misuse of aspirin alone causes more deaths each year than all pesticide cases combined."

And we doubt if there is one person in the country who is calling for a total ban on the use of aspirin.

* * *

IS PPM HARD TO EXPLAIN to your customers? The Cooperative Extension Service offers these helpful illustrations:

One part-per-million is equivalent to one drop in a 160-gallon tank, one pound in 500 tons; an ounce of sand in three and one-fourth tons of cement; one minute in 1.9 years; one cent in \$10,000; or one inch in 1.6 miles.

* * *

THE "OFFICIAL" VALUE of a shade tree has gone up. The International Shade Tree Conference and the National Arborist Association has approved a 50% increase. The formula for evaluating a shade tree is now \$9 (rather than \$6) per square inch of trunk cross-section measured 4.5 feet above the ground.

* * *

HURRICANE CAMILLE damage to research plots of the Southern Forest Experiment Station in the Gulfport, Miss., area may not be fully known for several months. But a flight survey indicates that half of research plantings on 500 acres are down. An annual average of eight scientists has been contributing to the plantings during the past 15 years. If half of the research is destroyed, 60 man years, then the total cost for replacement could reach \$3 million, say officials.

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SURPLUS Equipment—2—50 gpm Hardies, 1 with air-cooled VE-4 and 1 with Waukesha 40 horsepower liquid cooled. Both entirely reconditioned and overhauled in our shop. Pictures available. Subject to prior sale. Cash only. A. E. Hembree Nursery, E. 7809 Indiana, Spokane, Wash. 99206.

FOR SALE—Worthington 7 gang 3 blade blitzer mower, 30" blade capacity, 3:50 x 18" tires, excellent condition. \$950.00. West Salem Machinery Company, 7th & Murlark St., Salem, Oregon 97304.

SPRAYERS, chippers, log splitters and other equipment at large savings. Let us know your needs. Equipment Sales Company, 4744 Sunrise Highway, Massapequa Park, N. Y. 11762.

USDA Awards \$85,293 For Wilt Disease Research

The University of Rhode Island, Kingston, has been awarded an \$85,293 grant by the U. S. Department of Agriculture to conduct studies on wilt diseases.

The four-year grant is sponsored by USDA's Agricultural Research Service.

Under the leadership of Dr. Carl H. Beckman, the University scientists will conduct basic investigation of morphological and histochemical responses to *Fusarium* wilt infection and their function as disease resistance mechanisms in plants.

Results of the research are expected to provide a better understanding of *Fusarium* wilt diseases and of plant resistance to these diseases. This information is vital in the Department's continuing program of developing appropriate measures for controlling wilt diseases, which are among the most serious diseases of food and fiber crops.

Marshall E. Mace, plant pathologist, Beltsville, Md., will represent ARS in the research.

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Rutgers Announces Dates For Turfgrass Studies

Turfgrass study at Rutgers University, New Brunswick, N. J., for early 1970 includes a 10-week winter turf course Jan. 5 to Mar. 13, and two turf management conferences.

The three-day conferences are lawn and utility turf, Jan. 19-21, and golf and fine turf, Jan. 21-23.

Additional information may be obtained by writing Roger Locandro, Rutgers University College of Agriculture and Environmental Science, New Brunswick, N.J. 08903.

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