

meeting dates

S	M	T	W	T	F	S
	1	2	3	4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Turfgrass Sprinkler Irrigation Conference, 10th annual, University of California Conference Center, Lake Arrowhead, Calif., June 16-18.

Watersheds in Transition, a national symposium, Colorado State University, Ft. Collins, Colo., June 19-21.

National Golf Foundation Western Seminar, Sunriver Lodge, Sunriver, Oregon, June 26-30.

Aquatic Weed Science Society, formerly Hyacinth Control Society, annual meeting, Miami Springs Villas — Kings Inn, Miami Springs, Fla., July 9-12.

American Sod Producers Association, annual meeting, Skyline Hotel, Toronto, Canada, July 10-12.

Ohio Chapter, International Shade Tree Conference, summer meeting, Secor Park, Metropolitan Park District, Toledo, Ohio, July 12.

American Association of Nurserymen, Statler Hilton, Washington, D.C., July 16-19.

Society for Economic Botany, 13th annual, University of Mississippi campus, University, Miss., July 30-Aug. 2.

National Golf Foundation Eastern Seminar, Pine Needles Country Club, Southern Pines, N.C., Aug. 7-11.

Rutgers Turfgrass Research Day, College of Agriculture, College Farm Road and Dudley Road, New Brunswick, N.J. August 10.

International Shade Tree Conference, Inc., 48th annual, Newporter Inn, Newport Beach, Calif., Aug. 13-17.

American Association of Nurserymen Management Seminar, Syracuse University campus, Aug. 13-18.

Canadian Parks/Recreation Association, 1972 conference, Ottawa-Chateau Laurier Hotel, Aug. 14-17.

Northern Michigan Turfgrass Field Day, Traverse City Country Club, Traverse City, Mich., Sept. 13.

Eastern Kentucky Turfgrass Field Day and Conference, Powell Building, Eastern Kentucky University, Richmond, Ky., Oct. 10-11.

Turfgrass Equipment and Materials Educational Exposition, 12th annual, Southern California Turfgrass Council, Brookside Park, Pasadena, Calif., Oct. 11-12.

Missouri Lawn and Turf Conference, 13th annual, Ramada Inn, Columbia, Mo., Nov. 7-8.

Nebraska Turfgrass Conference, Kellogg Center, University of Nebraska, Lincoln, Nebr., Nov. 20-22.

Ohio Turfgrass Conference and Show, Franklin County Memorial Building, Columbus, Ohio, Dec. 12-14.

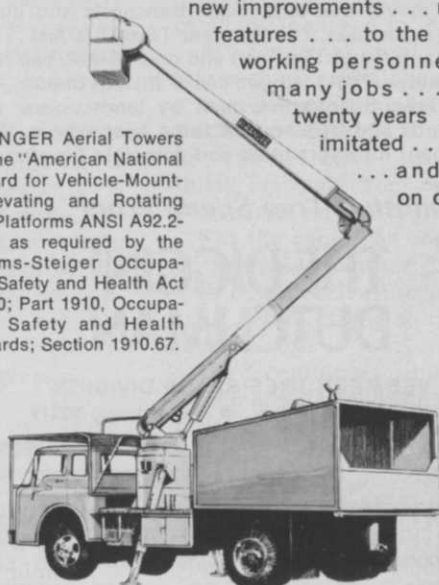
Southern Weed Science Society, 26th annual meeting, Jung Hotel, New Orleans, La., Jan. 16-18.

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UTILITY VIEW (from page 29)

suit local conditions. For example, heavily populated areas, major recreational areas, camp sites, summer colonies, and similar facilities are treated only during the dormant season.

In 1970 we altered our chemical program to eliminate applications on all existing transmission lines at primary and secondary road crossings to facilitate the return of natural visual barriers at these critical locations.

We believe we have been operating a sensible, well supervised, aesthetically acceptable and safe chemical program. It is our intention to continue the vegetation management maintenance program on the system transmission and distribution rights of way wherever it is inappropriate.

After much public opposition to a proposed 500,000 volt overhead steel tower line, the New Jersey Public Utility Commission, in 1969, gave our neighbor, Public Service Electric and Gas Company, approval to proceed—but six precedent setting requirements had to be met. Essentially these were:

1. Use of available railroad or other existing rights-of-way.
2. Tower locations related to topography to minimize appearance.
3. A program of tower painting designed to minimize effect on surroundings.
4. Where practical, permit special uses of the rights-of-way for farming, recreation, etc.

5. Non-uniform clearing of rights-of-way and retention of a maximum number of trees.

6. Landscaping of conspicuous right-of-way areas.

Our company is also committed to the pursuit of these and similar requirements.

In the past all of our rights of way have been "clear cut," stump sprayed and maintained chemically. Our experience with the new concept of selective clearing is limited to one 230,000 volt right-of-way, 120 feet wide and approximately 11 miles long. The right-of-way was predominantly farm or open land, with some forested areas and hedgerows. Approximately 35% of the right-of-way was wooded. Selective tree removal and/or trimming was undertaken at road crossings and at each end of the forested areas.

We have no way of estimating future maintenance tree trimming costs on this right-of-way. The use of herbicides in future maintenance work on this line is questionable at this time. We cannot, however, consider the line a typical right-of-way experience.

In addition to the right-of-way restrictions imposed by the New Jersey Public Utility Commission, the State of New Jersey enacted the New Jersey Pesticide Control Act of 1971. This Act formulates State policies regulating, among other things, the use of herbicides. Among its shortcomings, municipal ordinances which may be impractical and unrealistic can take precedence over the State Act. To date, this Pesticide Control Act has had no impact

on our vegetation management program.

Approved in 1968, Chapter 245 of the laws of New Jersey authorize municipalities to establish conservation commissions. Their functional range covers:

1. Open Space preservation.
2. Scenic, aesthetic preservation, and beautification.
3. Pollution control.
4. Waste disposal.

There are over 100 active commissions in New Jersey today.

Our experiences to date with municipal conservation commissions involved property owner complaints related to our transmission chemical program. Through our education of these municipal commissions as to the benefits of our chemical program and the proper application of chemicals, the commissions in turn were able to alleviate the fears of the property owners who considered the chemicals dangerous.

A most important regulatory control facing the utility industry in New Jersey today is Chapter 2, New Jersey Air Pollution Control Code—Control and Prohibition of Open Burning. The revised chapter stipulates, among other things, that "plant life" may not be disposed of by open burning. This takes effect January 1, 1973. "Plant Life" includes all vegetation.

Some municipalities have already prohibited all open burning, by local ordinance, in advance of the effective date of this Act.

An all-encompassing solution to the problem of transmission right-of-way tree and brush disposal is

not now known. The alternatives of logging, stacking, burying or chipping are not entirely compatible with selective clearing and trimming.

Elimination of open burning, while reducing air pollution, compounds the problem of refuse disposal. However, the regulation will enhance the minimal clearing requirements versus clear cutting by reducing plant material disposal requirements.

In a few words, let me summarize where we are and where I think we are going in the area of right-of-way maintenance. The rights-of-way presently under chemical maintenance will be permitted to continue as it. The right-of-way requirement of tomorrow will be different than it is today. We presently use 34,000 volt as a subtransmission voltage to feed substations. These lines run cross-country creating many rights-of-way. Tomorrow they will be the distribution voltage in the street and will require maintenance trimming only. The cross-country steel tower line will still be in demand but will make better use of the right-of-way corridors such as railroad rights-of-way, gas transmis-

sion rights-of-way, etc. Where new rights-of-way are created, total clearing will be minimal or non-existent, being replaced by selective removals and line contour trimming. Access roads to and on the right-of-way will be in some cases be non-existent. This all means that right-of-way maintenance will be mostly by trimming and thus very costly.

We are presently negotiating for a 500,000 volt right-of-way across state lands. If successful, we know that tree removal will be very selective, contour tree trimming a must but, most important, it is questionable whether or not we will be able to construct access roads. This means that this portion of the line may be constructed by helicopter and tree trimming done entirely by climbing. The art of right-of-way maintenance is retrogressing.

Clean Chemical Containers Combat Contamination

What to do with used pesticide containers is the nagging problem that has the chemical industry exploring new methods of packaging materials. But until these new packages are perfected, metal or glass

containers remain a potential contamination hazard to soil and water.

The National Agricultural Chemicals Association (NACA) suggests a procedure based on the techniques used by laboratories to reduce the concentration of material in a container. It's a simple rinse and drain procedure employed at the time the pesticide is placed in the spray tank.

After normal emptying, the container should be allowed to drain in a vertical position for 30 seconds. For best results the container should be rinsed three times, allowing thirty seconds for draining after each rinse, says NACA.

Fill the container one-quarter full with water or other diluting material. Drain each rinse into the spray tank before filling it to the desired level.

Used containers which have been rinsed and drained are ready for disposal by accepted local standards as crushing and burying or by recycling for scrap when appropriate.

For a free instruction sticker to attach to spray equipment, send a self-addressed, stamped envelope to: Safety Division, National Agricultural Chemicals Association, 1155 Fifteenth Street N.W., Washington, D.C. 20005.

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Arbor Day ceremonies were climaxed in the planting of a fern leaf beech on the White House lawn. Arbor Day celebrated its 100th anniversary this year. Pictured above (l-r) are: Mrs. Richard M. Nixon, honorary trustee of the Arbor Day committee, Allen Davis, designer of the District of Columbia Arbor Day Poster, Mayor Walter Washington, and Robert Felix, NAA president.

White House Tree Planting Highlight of Arbor Day

The 100th anniversary of Arbor Day celebration culminated in the planting of a 12 foot fern leaf beech on the West Wing Portico lawn of the White House by Mrs. Richard M. Nixon.

In a short ceremony preceding the planting, Robert Felix, president of the National Arborist Association said, "... Physically, trees give shelter to both man and beast. They reduce noise, wind, glare and temperature. They purify our air, and they stabilize our soil with their massive root systems. Trees give us food to eat, timber for our homes, and paper for our books... In behalf of the American people, the National Arborist Association is honored to present this commemorative tree to Mrs. Richard Nixon for the 100th anniversary of Arbor Day."

Mrs. Nixon as honorary trustee of the Arbor Day committee officially planted the tree by placing the first shovel-full of soil. She also announced that NAA would present seedling hemlocks to the 80 people attending the ceremony in the hopes that each person would return to his home and plant a tree for a more beautiful national capitol.

Also present at the ceremony were: Walter Washington, mayor of Washington, D. C.; Vern Livingston, president of the Nebraska Arbor Day Centennial; Mrs. Gerald Livingston, chairman of the Nebraska City Arbor Day committee; Mrs. Rogers Morton, wife of the Secretary of Interior; Senator Curtis of the state of Nebraska.

Representing NAA was president

and Mrs. Robert Felix and vice president and Mrs. John A. Shullenbarger.

Following the tree planting, Mrs. Nixon received the guests in the State Dining Room of the White House.

DDT Not Carcinogenic Scientists Tell EPA

Scientific experts testifying at recent hearings of the Environmental Protection Agency have ruled out the argument that DDT has possible cancer-producing properties.

Hearing examiner Edmund M. Sweeney concluded that DDT did not pose "the hazards of cancer or birth defects in man and did not have a deleterious effect on fresh water fish, estuarine organisms, wild birds or other wildlife." Furthermore, he ruled that benefits outweigh the risks for all uses of the pesticide.

DDT may actually be a cancer fighter, according to Dr. Edward R. Laws, Jr. of Johns Hopkins Hospital. In a study of mice fed DDT with their laboratory food, fewer cancers developed than with a control group.

The study added experimental support to an observation made in 1967 among a group of workers exposed on their jobs to high levels of DDT for 10 to 20 years. "It is noteworthy that no cases of cancer developed among these workers in some 1,300 man-years of exposure, a statistically improbable event," Dr. Laws reported in the American Medical Association journal, Archives of Environmental Health.

Nearly eight percent of the DDT-fed mice inoculated with tumor cells were without malignancy. All mice in the control group developed cancer. All cancerous mice died but those with DDT in their systems lived significantly longer, Dr. Laws reported.

"DDT may have an anti-cancer producing potential the physician said.

Among those who testified on the DDT issue in the EPA hearings were: Dr. Jesse Steinfeld, Surgeon General of the U.S. and a cancer researcher; Dr. John Higginson, director of the International Agency for Research on Cancer; Dr. Lorenzo Tomatis, chief of the chemical carcinogenesis unit for the same organization; Dr. William Butler of the Medical Research Council of Great Britain; Dr. Wayland J. Hayes, Jr., professor of medical toxicology at Vanderbilt University and former chief of the toxicology laboratory of the U.S. Public Health Service; and Dr. Ted A. Loomis, chief of toxicology for the State of Washington.

All testified that there is no evidence that DDT causes cancer in man.

Two Environmental Health Bulletins Available From Dow

Hearing Conservation Services is the title of the third bulletin in a series on environmental health services published by Dow Chemical. The fourth bulletin is titled Analytical Services.

Hearing Conservation Services was designed to assist industry and government in developing or implementing hearing conservation programs. Capabilities offered by Dow include: surveillance, noise exposure evaluation, noise control and consultation.

The fourth bulletin, Analytical Services, lists the capabilities for complete quantitative and qualitative environmental analysis of air, water, soil contaminants; determination of residue levels in fish, vegetation and animal life; assays of heavy metals and toxic chemicals in biological specimens. Techniques of analysis include the latest equipment available. Scientists can separate, identify and determine as part of the process analyses trace organics, metals and other pollution parameters.

For more information on the Hearing Conservation Services, circle (721) on the reply card. Circle (722) for additional information about Analytical Services.



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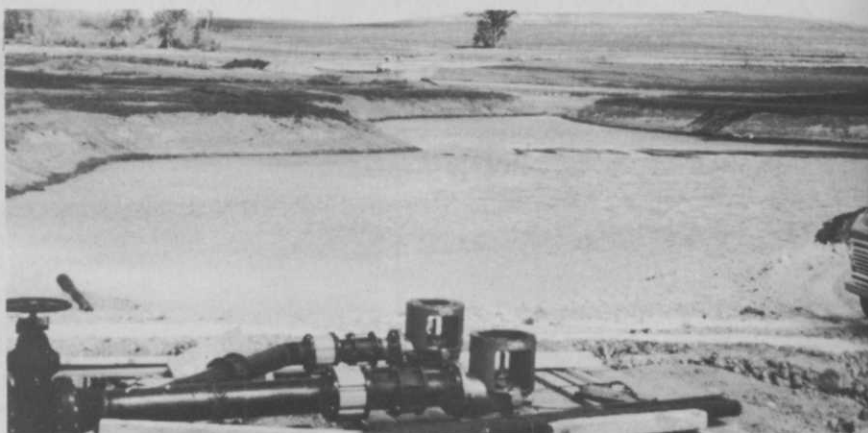
Type of Tractor Owned _____ Student?

GOLF COURSE (from page 16)

courses are usually less expensive to build and maintain. Less land is needed, meaning lower initial expense in acquisition. In addition, a smaller area can leave room for other facilities, either park areas if municipal or living units if a private or resort development. Such a course will appeal to more players of all abilities.

More use of water hazards for irrigation water storage and course strategy. Architects and golf superintendents find that this dual role of water decreases initial investment and maintenance costs. Irrigation water is increasing in importance and a ready supply insures use when needed. At the same time, we are building fewer sand traps, to speed up play. This again lowers maintenance costs.

More combination golf course and residential or resort developments. People like to live around golf courses, for access and beautiful scenery. About 40 percent of all new courses being built are of this type. In addition, the Bureau of Outdoor Recreation (U.S. Department of Interior) has made available \$255 million for grants to states and their cities and counties under the Land



Irrigation potential and water hazard were taken into account during the construction of the lake at the Foothills Golf Course. Large pumps capable of handling many thousands of gallons of irrigation water daily were installed.

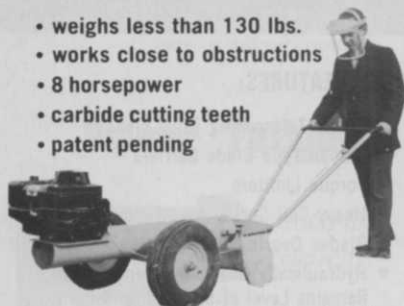
and Water Conservation Fund for development of public outdoor recreation areas and facilities including golf courses. Importance is attached to areas where concentrations of people live. A combination golf course and residential or resort complex could qualify for these Federal funds to be matched by the individual states. Such developments require good planning coordination between the golf course architect, residential area planner and owner. We must be sure to leave safety

space between golf holes and private property. Often the end result is that the golf course superintendent takes on the larger responsibility of watching over the total development.

More automation and wider coverage by irrigation systems. These modern underground irrigation systems are often the difference between a barren site and a beautiful, green course. But as these systems are asked to do more, the cost goes up. The demands on the water source
(continued on page 42)

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industry people on the move



Steve Derrick, named division advertising manager for Diamond Shamrock Chemical Company. Also promoted were: **John Anderson**, to product manager for Dacthal herbicide, and **Wayne Carruth**, to product manager for turf, phenoxy and arsonate.

* * *

Charles B. Lounsbury, promoted to product manager for Toro's rider and lawn tractor lines. He was district marketing manager for the midwest.

* * *

Frank J. Illnick, becomes national sales manager of Applied Biochemists, Inc. Will be responsible for expansion of nationally distributed proprietary products of the company.

* * *

Keith Tordsen, joined Geigy Agricultural Chemicals as a field sales representative. He is a 1971 graduate in agronomy from the University of Minnesota and a member of the American Society of Agronomy.

* * *

Richard B. Seely, named product manager for fluoro-difen and chlorbromuron herbicides for Nor-Am Agricultural Products, Inc. Also named product manager of fluometuron and chloroxuron herbicides was **H. Broughton Smith**. **George W. Banta**, to product manager for insecticides.

* * *

Lester M. Minsuk, named general production manager for the Chipman Division of Rhodia, Inc. Also appointed to Chipman's executive force is **John B. Clapp, Jr.**, now general sales manager for agriculture chemicals.

* * *

Edward P. Whaley, appointed general manager of H-M Plastics, a partnership between Hercules and Mitsui Petrochemical Industries Ltd. Formerly director, quality assurance, he will manage activities related to the production of polyethylene plastics and polyethylene bottles.

* * *

Gary Clark, becomes head of entomology research program at O. M. Scott & Sons.

* * *

Jim K. Smith, appointed manager of international marketing for the Charles Machine Works, Inc., manufacturer of Ditch Witch trenching equipment. He succeeds **Ed Maldonado**.

* * *

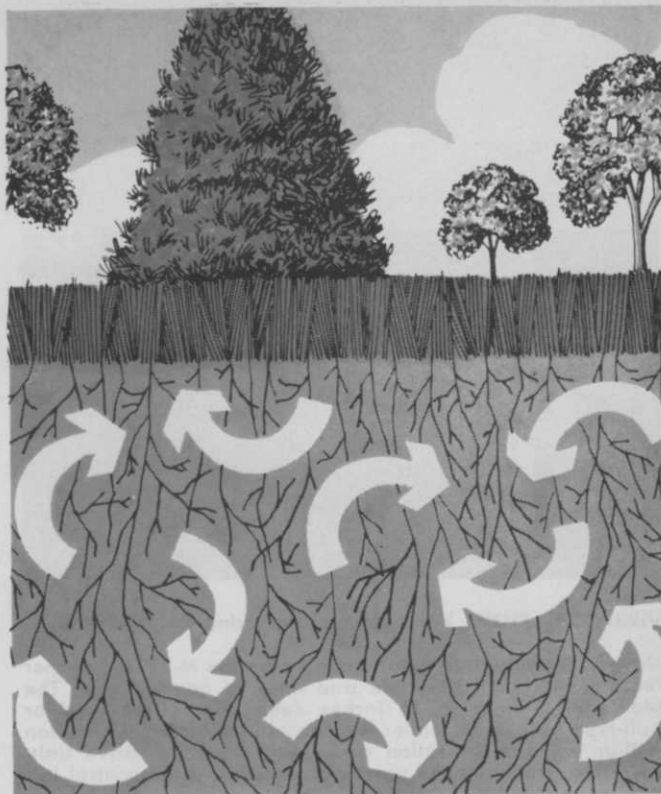
Robert N. Shreve, to manager of Conwed Corporation's industrial products group. He replaces **F. T. Weyerhaeuser**, former vice president and manager of the group who has assumed presidency of the corporation.

* * *

Ed Littooy, formerly president of Colloidal, named chairman of the board, a newly created position. His career embraces a span of 47 years with Colloidal. **Stanley W. Strew** has been named president.

* * *

D. E. Anderson, to manager of dealer marketing; **R. G. Miller**, to manager of municipal products; **Larry Vizenor**, to supervisor of industrial product sales; **R. L. Lindboe**, to manager special markets. All are newly created positions of Wayne Manufacturing Co.



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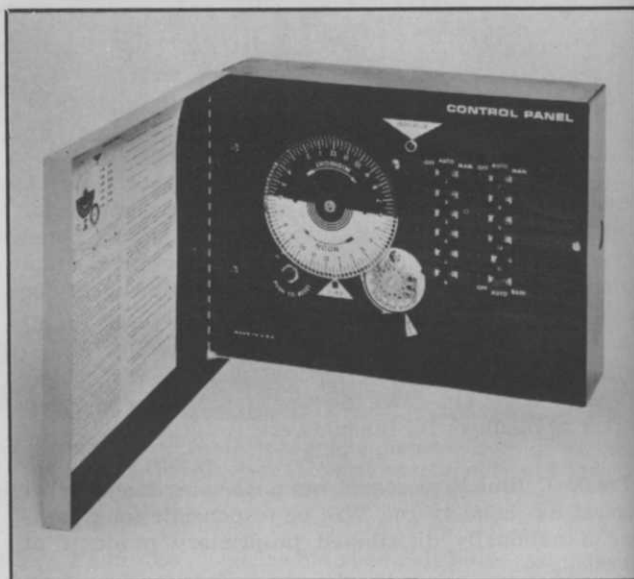
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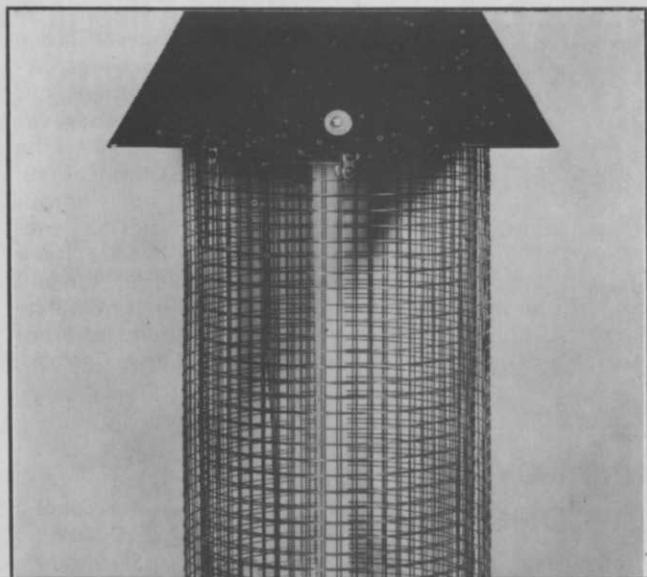
VIBRATORY PLOW: Vermeer Manufacturing Co., Pella, Ia.

New P-10 plow attachment mounted on the M-174H trencher features a compact, simple and easy to operate unit. The plow buries lines to 15 inches deep with either feed or pull-type blades. Its trailer-type design isolates the vibration within the plow-in action and away from the drive unit. PTO-drive transmits the power. Hydrostatic drive control lets anyone be an operator in minutes. A single control lever changes speeds and direction with no clutching or shifting required. Also available is a heavy-duty trencher that digs 3-5 inches wide, down to 30 inches deep, and a 16 inch by 42 inch dozer blade that angles a full 30 degrees, left or right, for backfilling. For more details, circle (701) on the reply card.



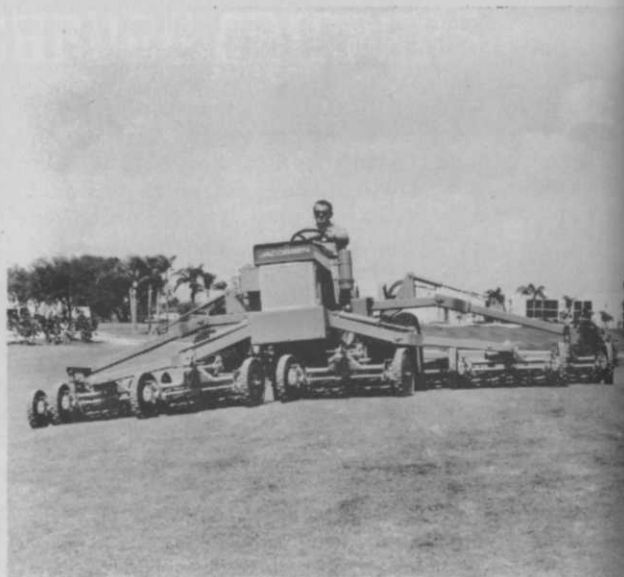
UL APPROVED ELECTRONIC CONTROLLER: Turf Irrigation, Div. of Melnor Industries, Moonachie, N.J.

Completely automate the operation of your underground sprinkler system with this easily installed controller. Equipped with a 14 day calendar wheel and 24 hour dial, the unit can be set to establish regular watering time for specific areas. A master switch turns the system on to fully automatic operation. A rain switch can temporarily stop the system without destroying the controller sequence. Each zone may be manually operated for any desired length of time. A pilot light indicates when watering is in progress. The walnut-grained, modern designed, controller box is wall-mounted. A circuit breaker in the panel assures electrical protection. For more details, circle (702) on the reply card.



ELECTRIC INSECT KILLER: Vandermolen Corporation, Livingston, N.J.

Here's a large, outdoor unit designed to keep areas from one third to three acres free of mosquitoes and other flying insects. The model G-15 accommodates up to 11,000 square feet. The cylindrical design attracts insects from all sides to a black light. Pests are incinerated in seconds when they reach the electrically charged grid surrounding the light. Powered by regular 110 volt current, the unit operates for pennies a day. For more details, circle (703) on the reply card.



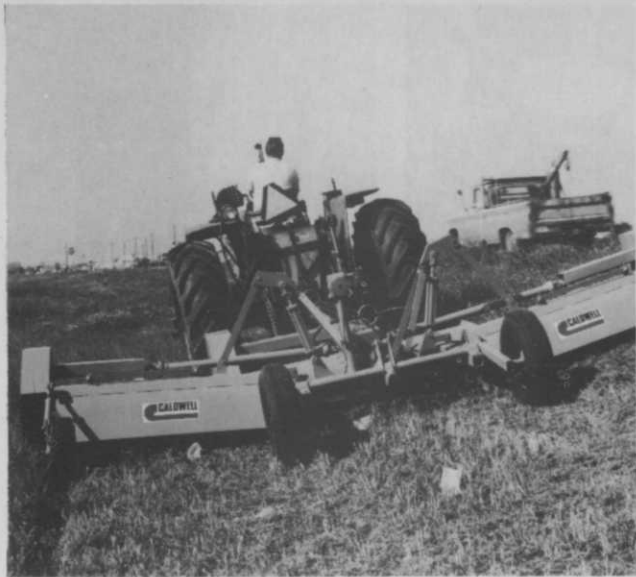
F-20 TURF TRACTOR: Jacobsen Manufacturing Co., Racine, Wisc.

Capable of cutting 19 feet in one pass, this 9 gang mower boasts a time-savings of 25 to 30 percent over existing 7 gang units. The unit sports the low profile and compactness of turf tractors yet is powered by a 68 hp gasoline industrial engine. It is ideally suited for road travel between job sites with all mower units capable of being hydraulically lifted to a transport position. Other features include self-adjusting hydraulic automotive brakes on drive wheels, a mechanical brake, spring loaded cushion seat and back rest and hand and foot throttles. A tool box and utility carry box are standard equipment. For more details, circle (704) on the reply card.



EASY MARKER: Fox Valley Marking Systems, Bartlett, Ill.

Make layout of shrubs, trees, parking lots and other areas quick and efficient with this new paint marker. It uses aerosol cans of paint that make highly visible, long lasting marks on grass, soil, pavement or gravel. It is easily operated from the ground or from a vehicle by activating the trigger mechanism on the handle of the unit. This precision unit can also be used to write instructions to working crews. Paint comes in colors of yellow, silver and fluorescent red. For more details, circle (705) on the reply card.



FLEXIBLE FLAIL MOWER: E. L. Caldwell & Sons, Corpus Christi, Tex.

Follow the contour of the ground with this three section, flexible flail mower that cuts a 15 foot swath. The mower is composed of a center six foot section and two five foot wings. The sections overlap six inches for no-gap mowing. Hydraulics are standard equipment. The five foot wings hydraulically fold for road travel and can easily pass through an eight foot gate. Cutting blades are reversible and mounted on a dynamically balanced rotor. Highway litter is thrown down into the ground and not out onto traffic. Shielded belts, U-joints and chain guards provide operator safety. For more details, circle (706) on the reply card.



MASS-HOPPER SPREADER: Willmar Manufacturing Company, Willmar, Minn.

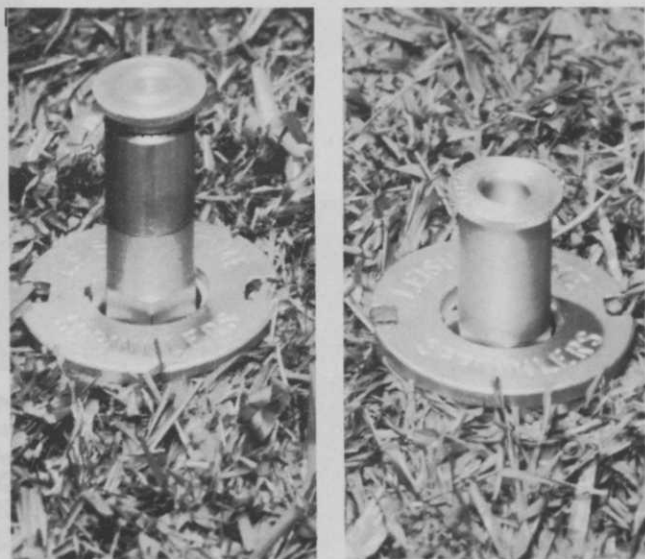
Par I and Par II are two new spreader models designed for precision application of fertilizer materials. Apply as little as 41 pounds per acre up to 1,156 pounds per acre. The units float over turf with 12.5 x 15 tires while carrying up to 1 1/2 tons of fertilizer. A maximum of 20 pounds per square inch down pressure is exerted when fully loaded. Other features include twin spreading discs, heavy-duty construction, easy on- and off-controls and low profile design. For more details, circle (707) on the reply card.



POP DOWN SPRAY HEAD: Rain Bird Sprinkler Mfg. Corp., Glendora, Calif.

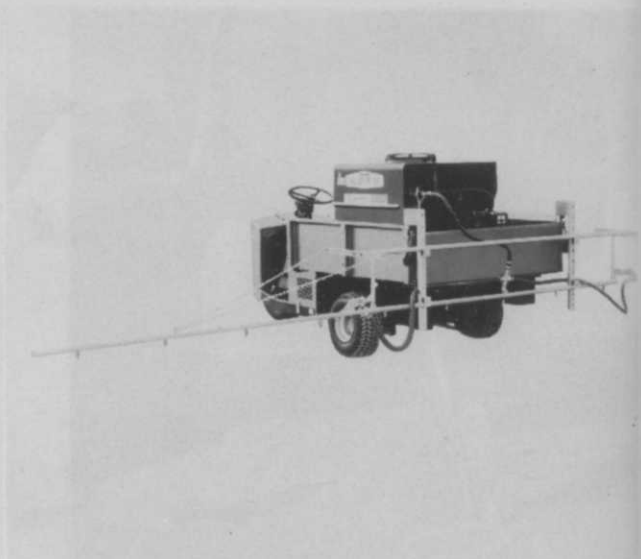
Activated during a watering cycle, this spray head sprinkler, the 2800 PD, pops above ground when water is turned on and retracts to ground level when off. Heavy duty stainless steel retract spring assures positive action every time. No more nozzles hanging up above ground when watering is through. A self-flushing feature removes dirt and debris before and after each use. An adjusting screw allows easy regulation of flow and radius of throw. Eight spray patterns are available. For more details, circle (708) on the reply card.





POP-UP SPRINKLERS: New England Union Company, Inc., New York, N.Y.

Bronze constructed models SP2 and SP3 install flush with the ground and pop-up to maintain 1 1/8 inches and 2 inches rise respectively with normal water pressure. The units are designed to accommodate a full line of mist and jet spray nozzles with a variety of spray patterns. Each model is self-flushing and retracts even with the ground when the water is turned off, minimizing the hazard of protruding sprinklers. For more details, circle (709) on the reply card.



TURFKEEPER: John Bean Division, FMC Corporation, Jonesboro, Ark.

Two new Turfkeeper golf course sprayers are now available. Model MF-100-G is PTO driven and model MF-100-GE is recommended for utility vehicles without PTO. Both units are equipped with lightweight, 3-section, 15-foot booms with 5-foot foldaway wings and 19 nozzles spaced at 10 inches. The G model features pressure hydraulic agitation while agitation on the GE model is mechanically driven by a five hp engine. Complete mixing and suspension of chemicals is assured in the 100-gallon leakproof steel tank. The PTO model utilizes a 3 to 1 pump drive ratio which provides enough force to apply 3 to 5 gallons spray per thousand square feet at low engine RPM. For more details, circle (710) on the reply card.



OFF-THE-ROAD BRUSH CHIPPER: Wayne Manufacturing Co., Pomona, Calif.

This chipper was designed for rough terrain. It is available in either 12 inches or 16 inches rotor blade sizes. A V-8 engine rated at 210 hp delivers smooth power. The unit trails behind a tractor or is available as a base, skid mounted or off-the-road model. A rugged and safe feed table completely encloses the rotor blade opening when the unit is closed and locked. This bars access to the knives when the unit is idle and locks down in open position to provide a firm working surface when operating. A special six-sided, disposable bed knife is used on all models. For more details, circle (711) on the reply card.



HEAVY DUTY SHADE TREE TRIMMER: Limb-Lopper Co., Inc., Santa Fe Springs, Calif.

Designed primarily for use with 1000-1500 psi (4-5 gpm) closed center hydraulic system of the M.A.T. Hi-Ranger lift, this model HL trimmer features a 2 1/2 inch cutter capacity. It is designed with fewer moving parts and a simplified external adjustment. The insulated model HL weighs 9 lbs. 15 ozs., and is 78 inches in length overall. Non-insulated versions are available in lengths up to 7 feet. Standard 3/8 inch female threaded connections are used and a foam heat-barrier is incorporated in the handle and trigger guard. For more details, circle (712) on the reply card.