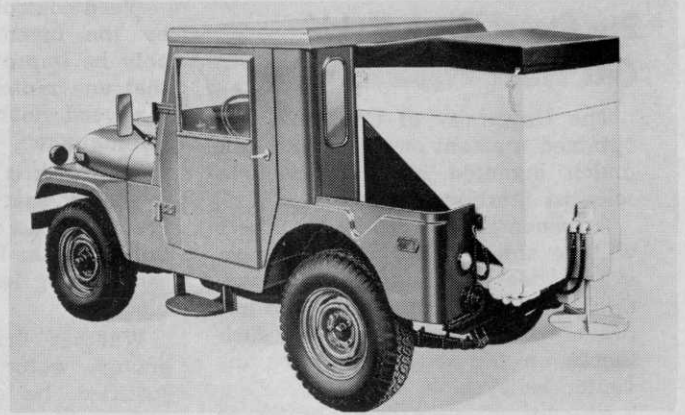




Bowie Industries, Inc., Bowie, Texas, introduces the Bowie Imperial 2500 Hydromulcher, featuring a 2,500-gal. capacity extra-thorough agitation and central controlled spraying tower. The unit is designed for fast, simultaneous application of seed or sprigs, fertilizer wood fibre and water on steep slope, roadway, public works, reforestation, golf course, park, home lawn, and housing project terrains. It is equipped with the patented Bowie pump. For more details, circle (702) on reply card.

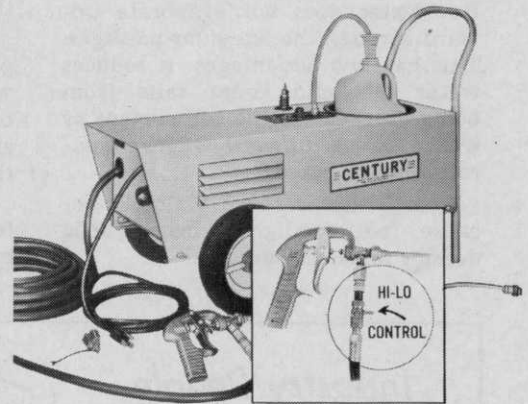


Central Engineering Company, Inc., Milwaukee, Wis., announces a new AUTO-SPREADER, Model A-100. Unit is a self-powered, self-contained, portable chemical and material spreader, holding one cubic yard of material. It can be easily mounted in the cargo area of a small service vehicle, or attached to a tractor three-point hitch. It is equipped with an instant on-off control switch for spot spreading of paved and turfed surfaces. For more details, circle (703) on reply card.

LPS Research Laboratories, Inc., Los Angeles, Calif., produces a micro-thin lubricant-rust inhibitor said to provide two-year outdoor protection for all metals. LPS #3, less than two/10,000ths of an inch thick; can be used as a chain and conveyor lubricant, manufacturer claims. Complies with Mil Spec C-16173D (Grade 2). Harmless to rubber, plastic and paint. Available from 16-oz. aerosols to 55-gal. drums. For more details, circle (706) on reply card.



Century Engineering Corp., Cedar Rapids, Ia., has improved two models of its portable washer by adding a diaphragm valve to the incoming water line to eliminate pressure fluctuation and insure consistent distribution of cleaning concentrates. An exclusive feature is a high-low water pressure control, changing pressure from 500 to 70 lbs. For more details, circle (707) on reply card.



Ideal Crane Division, Bert Parkhurst and Company, Tulsa, Okla., now markets a small, rugged hydraulic truck-crane. It is designed for safe, one-man loading and unloading of engines, drums, tanks, boxes and other equipment—any lifting job too big for one man to handle without strain. A hydraulic jack is the heart of the lifting mechanism. This low-cost crane features 360-degree rotation, and can be mounted on any style truck body or on a loading dock. It replaces a fork-lift truck for many jobs when mounted on a floor dolly. The crane is manufactured in two sizes—1500 lbs. and 2500 lbs. capacities—and comes complete with truck mount and six-foot lifting chain. Available accessories include an appliance strap and a barrel chain to handle drums in either horizontal or upright positions. For more details, circle (710) on reply card.



Pea Gravel 'Block Mulch' Cuts Water Evaporation

The University of California has obtained a patent on a porous block mulch invented by UC Riverside scientist Sterling J. Richards.

Ornamental growers and others will be able to save water, reduce evaporation, eliminate soil compaction, reduce salinity buildup and improve weed control by using such blocks on the soil surface, the inventor believes.

The blocks, made of pea gravel held together by fine sand and a small amount of cement, can be constructed in any shape or thickness. Surrounding or adjacent to plantings, the blocks are placed on top of ground which is to be watered.

Water goes down through the block as easily as through a sieve. But water does not evaporate upward through the irregular passages. This has two advantages: it reduces water loss and keeps salts from being "sucked" to the soil surface as water travels upward when evaporation takes place.

Compaction is reduced simply because foot or light wheel traffic doesn't touch the ground.

Weed control—although not tested by the inventor—would presumably be improved in the same way that any mulch does—by preventing weed emergence and by cutting off sunlight.

The block is not yet commercially available, said Dr. Richards. There are no figures on what it would cost, but he thinks it should be about the same as or less than patio paving blocks.

Whether the blocks would save enough water to be economically justified, he does not know. But with water becoming more expensive such a means of reducing losses and salinity will be more in demand.

Testing water use by citrus seedlings, Dr. Richards found that unmulched trees required six irrigations over a 40-day period, while only two irrigations were needed for trees growing in soil covered by the mulch blocks.

In a laboratory experiment, comparing evaporation from bare soil with that from soil covered by the blocks, the UCR soil physicist noted six times as much water loss from the bare soil.

There was little difference in soil temperature between the block-mulched and bare soils.



Dr. Sterling Richards, University of California scientist at Riverside, shows how easily water goes through porous block mulch he invented. Used around trees or other plants, blocks reduce water loss, soil compaction, salt buildup, and weed growth. UC has obtained a U. S. patent and has control of commercial license agreements.

Industry People On the Move



Amchem Products, Inc., Ambler, Pa., announces two recent appointments in its Agricultural Chemicals Division, according to M. B. Turner, vice-president and general manager. Stanley B. Seagler has been named to a sales position in the southwestern district, and Ivan J. Jones has been assigned as a district sales manager in eastern Canada.

Prior to joining Amchem, Seagler was plant manager of the Austin Farm Service in the Plainview, Texas, area. Jones formerly was a sales representative and supervisor of Canadian Industries, Ltd., Chatham, Ontario, and a field representative of Green Giant of Canada, Ltd.

* * *

The University of Maryland announces the appointment of Dr. Andrew J. Powell as assistant professor in the Department of Agronomy, according to department head Dr. James R. Miller.

Dr. Powell, who received his B.S. and M.S. degrees from the University of Kentucky, and his Ph.D. from Virginia Polytechnic Institute in 1967, will conduct research and do extension work in turf management, in addition to teaching this course and advising graduate students.

Prior to joining the agronomy staff, Dr. Powell served in the Army at Fort Bliss, Texas, as a Captain in charge of golf course operations, where he helped

organize the Rio Bravo Turf and Golf Course Superintendents Association.

* * *

Ansul Company, Marinette, Wis., announces the appointment of Dr. Ronald J. Wingender as an analytical research chemist in its Madison, Wis., research center. He will work in conjunction with the company's current pesticide studies and will conduct residue analyses in connection with new product screening programs.

From 1961 to 1964, Dr. Wingender worked as a chemist with the Forest Products Laboratories in Madison. He received his bachelor's degree in chemistry from the University of Wisconsin, his master's degree in physical chemistry from the State University of Iowa, and his Ph.D. in analytical chemistry from the University of Wisconsin last March.

* * *

Hypro, Incorporated, a subsidiary of Lear Siegler, Inc., appoints Ramon Pareja chief engineer and Maurice H. Nelson products and applications engineer.

Pareja, who joined Hypro in 1962, will direct a department of project engineers and draftsmen on new product development aimed at increasing the company's industrial and agricultural markets. A native of Spain, he went to Venezuela in 1954 as a hydraulic engineer with the Caroni River electrification program.

Nelson will help coordinate engineering, customer sales and marketing activities in his newly created position. He also will have responsibility for field testing of new products and improvements, in addition to relating customer application needs to the sales and engineering departments. Before joining Hypro in 1955, Nelson was employed by Northern Ordnance, Minneapolis, Minn.

Polluted Air Retards Growth of White Pine

Air pollution very definitely can stunt the growth of a tree.

Forest Service scientists have comparative white pines to prove it, suggests an article in the Cleveland Plain Dealer by William D. McCann.

McCann reports that healthy 15-foot white pines and foot-high sickly trees of the same species are growing a short distance from each other on the grounds of the U.S. Forest and Insect Disease Laboratory at Delaware, O.

After eight years' study, forest researchers conclude that sulfure dioxide and ozone, either singly or together, have stunted the trees, McCann writes.

"Sulfur dioxide is poured into the air primarily by the burning of fossil fuels such as coal and heavy oil," he explains.

"Ozone, a poisonous gas, is often caused by auto exhausts fumes going through a chemical change in the air."

Abnormal trees transplanted to a healthy atmosphere recovered; healthy trees deteriorated when placed in a polluted environment.

Dr. Leon S. Dochinger, chief plant pathologist, even found that when sickly trees were placed half in and half out of a control chamber, the protected half (through filtered air) grew thick, healthy needles while the unprotected half remained scraggly.

Some trees are affected more than others, with stunting found hundreds of miles from the source of the pollution, McCann reports. Other pines stay healthy in the polluted environment. Graft tests indicate that these pollution-resistant characteristics are hereditary.

There are many questions yet to be answered concerning the effects of pollution on trees. But Dr. Dochinger is quoted as concluding that "if dirty air can keep a tree from growing, what can it do to us?"



"My son took me in business."

Insect Report

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



TURF INSECTS

AN ANT

(*Pogonomyrmex salinus*)

UTAH: Collected at Kelton (northwest of Locomotive Springs) and 1.5 miles east of Kelton, and in Kelton Pass, all in Box Elder County. This is a new State record.

SWEET POTATO FLEA BEETLE

(*Chaetocnema confinis*)

ARIZONA: Damaged dichondra lawns in Maricopa and Pima Counties during 1968 and 1969. This is a new State record.

A PLANT BUG

(*Lopidea chelifera*)

UTAH: Collected on *Bassia* spp. at Santa Clara, Washington County. Also taken at Saint George in lesser numbers. This is a new State record.

SOUTHERN CHINCH BUG

(*Blissus insularis*)

TEXAS: Heavy and widespread in Jackson and Brazos Counties, damaging San Augustine grass.

A WIREWORM

(*Conoderus lividus*)

SOUTH CAROLINA: In soil around roots of Coastal Bermudagrass at Brays Island, Beaufort County. Up to 5 larvae per shovelful of soil. About 8 acres out of 25 damaged.

INSECTS OF ORNAMENTALS

CARMINE SPIDER MITE

(*Tetranychus cinnabarinus*)

ARIZONA: Heavy on violets at Tucson, Pima County.

A PSYCHID MOTH

(*Apteronia crenulella*)

NEVADA: Collected on weeds and ornamentals at Genoa, Douglas County. This is a new county record.

FLETCHER SCALE

(*Lecanium fletcheri*)

WISCONSIN: Hatch complete on arborvitae at Middleton, Dane County. Most crawlers emerged. Much lower than usual in Dane County.

BROWN GARDEN SNAIL

(*Helix aspersa*)

OREGON: Damaged nursery stock at Medford, Jackson County. Steadily on increase for several years.

TREE INSECTS

PEACH TREE BORER

(*Sanninoidea exitiosa*)

PENNSYLVANIA: Infested most trees, girdled many, in about 500 weeping flowering cherry trees 1-4 inches in diameter in nursery at Manchester, York County. Most borers emerged; some still in larval and pupal stages.

JACK-PINE BUDWORM

(*Choristoneura pinus*)

WISCONSIN: About 40 percent pupated in Douglas County. Some pupae in Douglas and Bayfield Counties by July 5; little or no defoliation. Third to fifth instars in Vilas County. Pupation just beginning July 9 in Marinette County.

A PINE NEEDLE-SHEATH MINER

(*Zelleria haimbachi*)

OREGON: Damage above normal to home and Christmas tree plantings in Clackamas and Multnomah Counties. Damage severe locally to native ponderosa pines at Medford, Jackson County.

NANTUCKET PINE TIP MOTH

(*Rhyacionia frustrana*)

KANSAS: Infested 50-60 percent of commercial pines in Sedgwick and Cowley Counties.

PINE TUSSOCK MOTH

(*Dasychira plagiata*)

WISCONSIN: About 70 percent of larvae pupated; rest, sixth instars spinning cocoons July 10. MINNESOTA: About 30 percent pupated in east-central area. High counts still persist in this area; 1970 control program possible.

WHITE-MARKED TUSSOCK MOTH

(*Hemerocampa leucostigma*)

WISCONSIN: Adults began emerging July 7 at De Forest, Dane County. Final instars still present July 16.

BLACK PINE-LEAF SCALE

(*Nuculaspis californica*)

CALIFORNIA: Heavy on lodgepole pines at Avenal, Kings County.

LARCH SAWFLY

(*Pristiphora erichsonii*)

MARYLAND: Collected on larch planting in Anne Arundel County. This is a new county record.

Trees Could Be Affected By 'Ovedose' of Weed Killer

Are any of your customers reporting that some of the trees in their lawns seem to be dying from a strange disease?

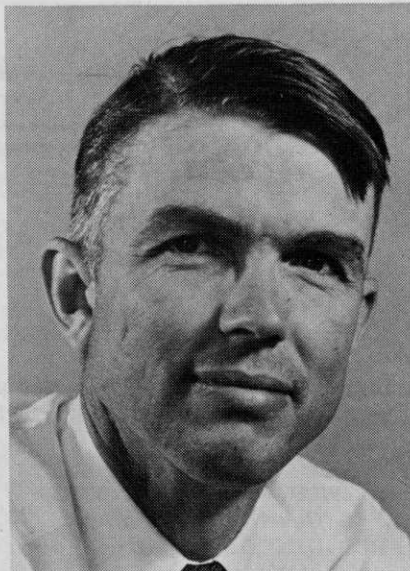
They may be suffering from an overdose of weed killer, suggests Dr. Francis R. Gouin, University of Maryland horticulturist.

"These materials may be effective in controlling weeds while fertilizing lawns, but their use has resulted in increased injury to ornamental plants. Most of the plants will grow out of a slight injury, but repeated damage can be fatal.

The injury shows up as gnarling and twisting of new stems, twisting and curling of the leaf petioles and cupping and distortions of the leaf.

Some home owners "double up" on fertilizers in spots where grass is hard to grow. Double application of fertilizer means doubling the amount of herbicide, Dr. Gouin reminds. This double concentration of herbicide near trees or shrubs increases the chances of injury.

If you do detect trees with herbicide injury, advise your customers to keep them well watered, especially during drought periods. Instruct them to fertilize the injured ornamental during the fall, winter or spring to restore plant vigor.



William Flemer, III, Princeton Nurseries, Princeton, N. J. was elected president of the American Association of Nurserymen during the association's annual convention in July. Flemer, who holds a master's degree in botany from Yale University, began in the family nursery in 1946. He has held numerous officer and committee posts in AAN. Among many offices held in nursery associations, he has been president of the following: New Jersey Association of Nurserymen (1959), Ornamental Growers Association (1958-59), National Association of Plant Patent Owners (1965), Eastern Regional Nurserymen's Association (1966).

Trimmings

CONSERVATIONISTS in New Jersey succeeded in banning the use of DDT against the gypsy moth, contending the chemical was a threat to wildlife. A recent aerial survey indicates that trees in some 38,190 acres in seven counties are now severely defoliated by the heaviest moth infestation in years. The problem is eight-fold worse than last year, says an agricultural department official. Defoliation in the same place next year, he added, will mean tree losses. Dead trees mean less food and shelter for wildlife, increased danger of fire and soil erosion from run-off flooding.

Nice going, conservationists. Your efforts may reap that silent spring, when no birds sing.

* * *

NATURAL DESTRUCTIVE forces never let up, it seems. Mt. Vesuvius destroyed Pompeii, Italy, 2000 years ago. Still, the ruins have attracted historians and incalculable numbers of sightseers. A new threat is the destruction of even the ruins.

The threat is weeds, growing vigorously in the fertile volcanic soil. They fill every courtyard and every crack in masonry. Officials responsible for Italy's antiquities are deeply concerned because not enough funds are available to remove the weeds.

* * *

GOING TO THE OPERA won't be the same next year in St. Louis. The stately, 60-ft. high elm that has graced the lower entrance of the Municipal Opera amphitheater area is dying. The 50-year-old tree is stricken with Dutch elm disease. When symptoms appeared last year, the tree was sprayed and holes were bored through nearby concrete walkways to permit force-feeding of its root system with liquid fertilizer. The operation was unsuccessful, and the tree will be removed at the end of the opera season.

* * *

A FEDERAL NARCOTICS officer may be embarrassed over his ignorance of weeds, but the fellow who exposed him isn't laughing. A Cincinnati man allegedly got \$300 from the federal agent for a supply of marijuana. He was arrested for selling narcotics, but a laboratory examination showed the "marijuana" was only dried garden weeds.

Instead of releasing the man, the charge was changed to larceny by trick. Though the weeds didn't include marijuana, there is a suggestion of sour grapes.

LETTER TO THE EDITOR

Another Way to Kill Cattails

I read with interest the paper on "How to Kill Cattails" by Bert Bordewick in the July issue. I thought your readers would like to know how the same problem was handled in Louisiana.

While looking for a synergistic agent to be used with 2,4-D in 1963, the writer found that the combination of glucose and the residual acids found in untreated blackstrap molasses seemed to serve the intended purpose.

(Blackstrap molasses is the residue from the manufacture of cane sugar.)

It was found that surface aquatic plants were more easily controlled by a mixture of the blackstrap molasses and the amine salt of 2,4-D. It was found also that this mixture was highly successful in controlling most of the submersed aquatic vegetation found

in the area.

This information was given to the operators of Hodges Gardens near Many, La., and was used to clear the lagoons and ponds of the troublesome submersed plants. Cattails remained along the bankline.

A mixture of two gallons of untreated Louisiana blackstrap molasses and one gallon of the 40% amine salt of 2,4-D was added to 100 gallons of water and sprayed on the cattails with a conventional power sprayer until the plants were drenched.

It has now been reported to the writer that the unwanted cattails were completely destroyed.

—**WILLIAM E. WUNDERLICH**, Chief, Aquatic Growth Control Section (RET.), U.S. Engineer District, New Orleans.

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HELP WANTED

LANDSCAPE DESIGN Salesman: Large Northeast Tree and landscape business. College background in Ornamental Horticulture and/or landscape design. Sales ability one of the prime considerations. The right person will head our landscape department. Must have at least 3-5 years experience in this field and service commitment completed. Salary open; company car furnished; pension plan; paid hospitalization; excellent future. Send resume to: Box 43, Weeds Trees & Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

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Aquatic Weed Control

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