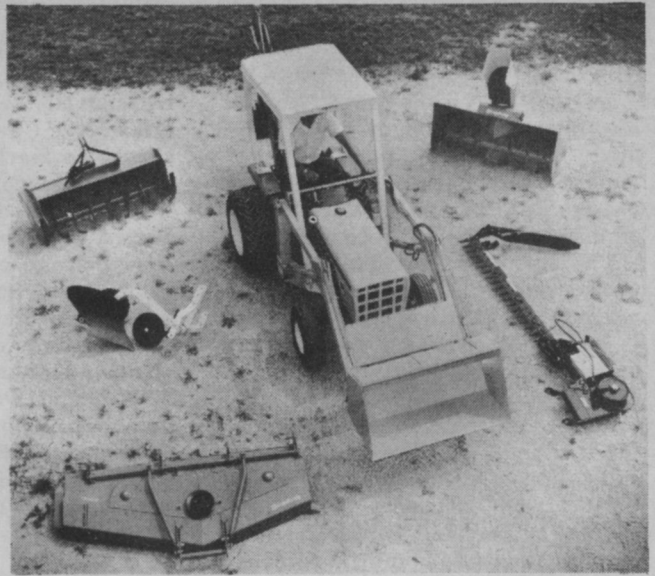


PLASTIC UTILITY CAN: Gotham Chicago Corp., Chicago, Ill.

Cans such as these literally have a thousand uses. Made of almost indestructible, rigid, inert plastic material, they won't rust, chip or dent. Removable protruding pour spout and flip covered air vent. Designed with large comfortable handle, strategically placed for balance when in use. Available in popular avocado and in three sizes, 2 gallon, 3½ gallon and 5½ gallon capacity. For more details, circle (713) on the reply card.



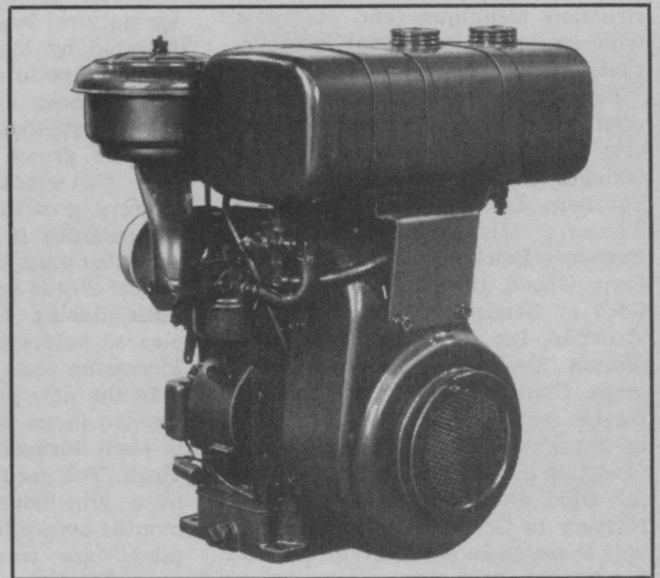
COMPLETE ATTACHMENT LINE: Simplicity Manufacturing Co., Inc., Milwaukee, Wisc.

There are 13 attachments available for this 19½ hp tractor. Included are mowers, plows, tiller, snow thrower and front end loader. There are 9 accessories, and many allied attachments including a back hoe. There are 9 field-installed options, including the new roll over protection structure. A unique three-speed range transaxle, coupled to a hydrostatic transmission, permits infinite control of speed while retaining full engine power. For more details, circle (714) on the reply card.



BOB-CAT: Wisconsin Marine, Inc., Lake Mills, Wisc.

Three heavy-duty commercial lawn mowers are now in production. Model 16-61 is largest with two hydrostatic transmissions. Separate levers control operations for each drive wheel. Because each rear drive wheel operates independently, zero turning radius is possible for greater maneuverability. Other features include three full-floating blades for a 61 inch swath, a 16 hp engine, fingertip blade height control and a fail-safe control lock. Unit is considered ideal for professional groundskeepers, park and golf superintendents and others. For more details, circle (715) on the reply card.



DUAL FUEL ENGINES: Kohler International Ltd., Kohler, Wisc.

A new line of air-cooled, four-stroke engines that start on gasoline and switch to kerosene operation is being introduced to the world market. Four engines ranging in horsepower from 2.6 to 7.9 Hp are available. Engines have dual compartment fuel tanks. Three-way valve lets operator switch quickly from gas to kerosene or to shut off both fuels. For more details, circle (716) on the reply card.



Assoc. Landscape Contractors Slate Convention In Jan.

IMPACT '74, the 12th Annual Meeting and Exhibit of the Associated Landscape Contractors of America, will be held at the Hilton Palacio Del Rio, San Antonio, Texas, January 28 through February 1.

The five day conclave is structured around the various forces impacting the landscaping profession — examples of which are consumerism, unionism, specialization, and diversification.

Highlighting the meeting, according to Ronald Ahlman of Lawrence and Ahlman Landscaping, Dundee, Ill. program chairman, will be an address by Dr. Walt Lewis, environmental scientist from the University of Illinois, and marketing consultant Welde Cox, from a Philadelphia enterprise bearing his name.

Additionally, ALCA's Annual Trade Exhibit, featuring the best of the industry's suppliers and equipment manufacturers, affords delegates an excellent chance to do some comparative shopping.

The opening day of the convention will feature an address: "Creating ECOLibrium" by Dr. Walter H. Lewis of the University of Illinois, an acknowledged authority on construction techniques and contracts, who has some pertinent observations on the economy of ecology.

Panel discussions are also scheduled. Tom Roberts of Thomas Roberts Associates, in Oklahoma City Oklahoma, George Hederhorst of Southern Landscaping in Houston, Texas, Dick Brickman of Theodore Brickman & Associates in Long Grove, Illinois, and Carl McCord of Landscape Design & Construction, Inc. in Dallas, Texas will discuss "Design Services and Landscape Contracting." Then Clarence Davids of Clarence Davids & Sons in Evergreen, Park, Illinois, James Christian of Tri-County Turf in Foster, Ohio, and Terry Jones of Jones Nursery in Grand Rapids, Michigan will share their observations on the Landscape Maintenance business.

An irrigation panel will be conducted by Austin Miller of Sprinkler Irrigation Association in Royal Oak, Michigan, Brad Tolson of Siesta Irrigation & Supply Co. in Tucson, Arizona, and Wally Gunderson's of Gunderson's Inc., in Rapid City, South Dakota.

"Marketing Your Landscape Contracting Business" with Welde Cox of Welde Cox & Associates in Philadelphia, Pennsylvania, starts off the business of Thursday, the 31st. Originating with the problems faced by

architects, Cox has branched out into other marketing problem areas, such as Landscape Contracting, and will advise delegates on how aggressively professional services should be marketed.

The final day of the conference, will be devoted to talks from Owen Peters, president elect of the American Society of Landscape Architects, David Spencer of Spencer & Spencer in Springfield, Illinois, and Norman Gray of Transit Seeding in Mansfield, Massachusetts. The afternoon begins with a Bonding/Banking Workshop with Tom Frost, Chairman of Frost National Bank, in San Antonio, Texas, and ends with a Board of Directors.

Extruded Soil Blocks Automate Tree Planting

One of the biggest problems of reforestation bare land is the two to three year wait from the time new trees are needed until seedlings are available for planting. A University of Idaho scientist is developing equipment to automate a process enabling trees to be transplanted within four months after a seed is planted.

Walter L. Moden, Jr., associate agricultural engineer, said land deforested by logging, forest fires or mine gas pollutants can be replanted much sooner and at less cost with the new method.

Trees grown in the nursery as bare root stock need two years of nursery growth before they can be transplanted in the forest. Planting expenses must be planned far in advance. Weeds and brush which grow back during that time must be cleared before trees can be planted, increasing costs.

In the new process, a tree seed is planted in an extruded soil container—soil formed into a rectangular block. The seeded container is kept in a greenhouse for two to four months before the seedling and container are transplanted. The soil around the roots of the seedling prevents planting shock and root damage, Moden said.

Because the soil containers have a greater bulk density than the surrounding soil, moisture is retained more readily. Moisture is not lost to the surrounding soil as is the case when peat moss is used around the roots, he said.

Moden explained the equipment he is developing will take a special mixture of soil materials, press it into blocks one inch square and four inches long, insert seeds and place

seeded blocks in a tray for germination and growth in the greenhouse.

Extrusion of the blocks or soil containers is now done by a machine the scientist developed in 1971, but seeding and placing containers in germination trays must be done by hand. Two to three people can extrude and seed about 2,000 containers per day. The automated process, once completed, should produce over 10,000 containers per day using the same number of people, Moden said.

He estimated the cost of the blocks by the process now used to be 1.3 cents each. The automated process would reduce the cost. Nursery-grown trees at the U of I nursery cost 2 to 4 cents each to produce.

Some work has been done in the past with containers of different materials and construction, but none has been totally successful, Moden said. Many have plastic shells which do not decompose and will restrict root development.

The extrusion machine forms soil blocks stable enough to withstand greenhouse watering and handling during transplanting without an outer covering. A hole for the plant taproot to follow is formed during the extrusion process.

Another machine being developed will plant containers with their seedlings at set intervals, the U of I scientist noted. Only one person will be required to drive the tractor. Presently seedlings must be planted by hand. The planting machine can go anywhere a small crawler tractor can pull it.

He noted future project work will include revegetating highway cuts. The process should enable cuts to be planted with grasses or low shrubs which will reduce erosion and improve the appearance of the cuts.

Paper Mill Wastes Makes Landfill Sandwich

The Earl of Sandwich, the renowned English nobleman who discovered the sandwich, would be proud of Michigan State University's Dr. Orlando B. Andersland.

Dr. Andersland, a professor of civil and sanitary engineering, has taken the good Earl's idea and transformed waste and sludge from paper mills into useful land forms. His concept of a "sandwich" is a layer of sand, a layer of sludge and a load of natural soil on top to weight the layers down. Since nobody likes a soggy sandwich, Andersland figured that the sand layer would drain the water from the sludge. The top soil

would compress the sludge to ensure such drainage.

The system has worked so well that a 25 foot sandwich shrank to 20 feet in height because of the water drainage during the first year. The area retained its stability and equilibrium through the winter snows and spring rains during the second year.

According to the professor, roughly 200 million cubic yards of paper mill sludge are produced annually, with much of it going into landfills throughout the U.S., but with no plans for later use.

He's now preparing a final report on the project for the Environmental Protection Agency, who supported the project along with the National Council of the Paper Industry for Air and Stream Improvement.

The specific design of Dr. Andersland's sand-sludge sandwich had five layers. First came a one-foot base of sand with suitable drainage arrangement, then a 10 foot layer of sludge dumped in by the truckload. On top of this was deposited another one-foot layer of sand, followed by another 10 foot layer of sludge. A final three-foot layer of natural soil capped off the sandwich.

A vertical boundary or dike of natural soil was put around the area to stabilize it until it drained and settled.

When the drainage was complete the lower layer of sludge had shrunk from 10 to 7 feet and the higher layer of sludge had shrunk from 10 to 8 feet, accounting for the total 5 feet of shrinkage in the 25 foot sandwich.

After one year, the supporting dike was removed at an almost vertical angle in order to ensure a "failure." Dr. Andersland wanted to determine whether the planned failure would lead to a general slide of the sand-sludge mass. But no further failure occurred despite snow and rain.

Dr. Andersland sees the method as useful for reclamation of paper mill waste in landfills, for incorporation in recreational terrain such as for golf courses, or sliding or ski hills. "Implications of the project for land conservation are enormous," he said.

"Gravel pits and waste areas are being filled with paper sludge which retains water because of its high organic content, so that the landfills stand useless and basically unchanged for decades. Sludge consists of water, plus solids that are about half cellulose fibers and half clay.

"Compacting the sludge according to carefully engineered procedures permits disposal of large quantities of sludge in each landfill," he said.

"Compacted sludge could be removed and taken to areas where lightweight fill is needed . . . Covering of a soil layer would restore the land to use."

Toro Irrigation Division To Hold East-West Meetings

The Irrigation Division of the Toro Company will hold two national distributor sales meetings early next year.

Robert E. Landesman, director of marketing for the division, said the

decision was made in line with distributor preferences determined by a survey conducted by district managers.

Distributors in Colorado, Oklahoma, Texas and West Coast states will meet for three days at The Inn, Rancho Bernardo, Calif., Jan. 31-Feb. 2. Distributors from all other states will be at Innisbrook Resort & Golf Club, Tarpon Springs, Fla., Jan. 24-26.

The program for each meeting will be identical: a full day each devoted to service, product application and sales of Toro's irrigation equipment.

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Maryland Turfgrass Association Plans Sod Conference For March

Thirty-five members and guests of the Maryland Turfgrass Association met in Olney, Maryland on October 11, 1973 to conduct their regular monthly business meeting.

Association involvement in land use legislation being considered by Maryland legislators was discussed. It was decided that the Land Use Committee would attend the legislative hearing and testify before the committee to support the best interests of sod producers in the State of Maryland.

The program committee was formed for the 9th Annual Maryland Sod Conference to be held at the Adult Education Center on the University of Maryland Campus on March 7, 1974. Emory Patton, Larry Moore, James Doll, and Wallace Miller volunteered to assist program committee chairman John Hall.

The Educational portion of the meeting was presented by Lee Hellman of the entomology department of the University of Maryland. Mr. Hellman, who is a turfgrass entomologist in the Department of Entomology, discussed life cycles and methods of control for the more serious turfgrass pests. Extreme interest centered around sod webworm problems which have been severe in Maryland this year. An estimated 400-500 acres of sod has been severely damaged by sod webworm infestations in Maryland in 1973. The heavy population of sod webworm coupled with poor rain distribution in July has severely lowered the quality of sod in southern Maryland and in certain areas of the Eastern Shore.

Hellman discussed the research he is conducting on sod webworm and the fact that he has found good sod webworm control with single applications of Diazinon and Dursban. His data indicates that Sevin and chlordane did not give adequate control of sod webworm populations under the conditions of his experiment.

The next meeting of the Maryland Turfgrass Association is scheduled for November 8, 1973 and will be an election meeting. The Maryland Turfgrass Association is continuing to plan for the 1974 American Sod Producers Association Summer Show to be held in Maryland July 14-20, 1974.

College Football Squad Lays Sod In Time For Game

Seven members of the St. Mary's varsity football team, along with 23 other volunteers, took part in a record-breaking installation of 59,200 sq. ft. of bluegrass sod on the college's football field, in Moraga, Calif.

Under the supervision of Tom DeHerrera of Economy Garden Supply, San Leandro and Ken Hofmann, Hofmann Builders, installation of the playing field in the \$210,000 stadium project, was begun at 7:45 a.m. and completed at 12:45 p.m. in one of the fastest jobs of this sort ever undertaken.

Eight truckloads of bluegrass sod from the Patterson growing grounds of Nunes Turfgrass, was unloaded on pallets spotted around the perimeter of the field, and a crew of volunteers started at the center of the field laying the Instant Grass and setting sprinklers into motion as each section went down.

The field, in the planning stages since 1971, will be the culmination of the dream of three former football greats from St. Mary's Dutch Conlan '26, George Canrinus '34 and Bill Fischer '32. Funds for the project have come principally from donations of cash, materials and services.

Joe Ventura, Nunes' local representative, watching the men charge across the field in record time reports he can only see one hazard to

the field. "There's a little herd of cows that roam these hills. Three of them were watching the grass go down with great interest."

Two New Seed Blends Introduced By O. M. Scott

Two new seed blends for unusual environmental and functional conditions have been introduced by the Proturf division of O. M. Scott & Sons.

Transition Blend is a mixture tailored especially for the southern-most reaches of the bluegrass belt. It combines all three of Scotts' proprietary bluegrasses: Windsor, the improved Kentucky bluegrass variety; Victa, whose resistance to leaf-spot, stripe smut and powdery mildew was discovered in eleven years of testing; and Vantage, the newest proprietary grass which offers early spring green-up, good persistence under high temperatures and resistance to *Fusarium roseum*.

The product of this blend is a turf that is uniform, fine-textured, medium to dark green in color, with excellent sod-forming characteristics. It is low-growing and tolerant to climatic and soil variations, with a high level of resistance to a broad range of turf diseases.

Sports Turf mixes both Victoria and Windsor improved Kentucky bluegrass, for fine texture and deep green color, with Manhattan perennial ryegrass for quick, dependable establishment and rugged durability.

The resultant turf is tough yet beautiful. Responsive and resilient, it offers early green-up with color extending into late fall. Specifically developed for hard-use areas or areas with heavy foot traffic, Sports Turf performs well in both sun and light shade.

Princep For Algae Control Registered By EPA

The Environmental Protection Agency (EPA) has registered Princep 80W simazine for use in preventing the growth of most common forms of algae in large aquariums, ornamental fish ponds and fountains without harming fish or most aquaria plants.

Princep is widely used for agricultural and industrial weed control. One treatment normally lasts several weeks, depending on conditions causing algae growth.

Federal Seed Act Violations Cost Illinois Firm \$1300

New Jersey secretary of agriculture Phillip Alampi has been informed by the U.S. Department of Agriculture that a court judgment of \$1,300 for violations of the Federal Seed Act has ended a case against the Seaboard Seed Company, Bristol, Ill.

The case involved one shipment of mixed lawn seed made into New Jersey in 1968. The seed was picked up by a New Jersey Department of Agriculture inspector and was tested in the Department's seed laboratory. It was found to be falsely labeled as to the percentages of annual ryegrass seed, perennial ryegrass seed, tall fescue seed, other crop seeds, and the date of test. In addition, the shipment contained a cited New Jersey noxious weed seed, Bermuda-grass.

Other shipments which were in violation of the Federal Seed Act had been made by the same company to Pennsylvania, Virginia and South Dakota.

The judgment against Seaboard Seed Company was issued by the U.S. District Court for the northern

district of Illinois.

The Federal Seed Act is a truth-in-labeling law designed to protect consumers in the purchase of seed. In part, it requires that lawn seed be truthfully and completely labeled.

New Jersey has similar legislation, but has no legal recourse when an out-of-state firm is found to be in violation.

Northeast Severely Hurt By Gypsy Moth In 1973

Leaf-eating gypsy moth caterpillars defoliated an estimated 1,773,846 acres of woodland in nine northeastern states this summer, the U.S. Department of Agriculture (USDA) reports. This is an increase of about 400,000 acres over the 1972 defoliation.

Pennsylvania was the hardest hit northeastern state this year with approximately 856,710 defoliated acres. Other states with defoliated acres include an estimated 333,215 in Connecticut; 254,865 in New Jersey; 248,441 in New York; 43,970 in Massachusetts; 35,925 in Rhode Island; 490 in Maine; 200 in Vermont; and 30 in New Hampshire.

A single 2-inch caterpillar can eat a square foot of leaves every 24 hours.

Sprinkler Zone Control Patent Granted Tork Time

Michael Bizzoco, vice president of Tork Time Controls, Inc., has been granted a patent for the water-saving zone control feature of sprinkler controllers manufactured by Tork.

Bizzoco developed an "automatic interrupt and restart" which makes possible intermittent watering of any zone within a single sprinkling period. The Tork controller advances from section to section, up to 12 sections or zones, and while other controllers do permit for individual sprinkling programs for each zone, it is the patented feature which makes for water saving.

Water is wasted by run-off in sprinkling operations, particularly in slope or shrub sections. The intermittent feature provides watering in short bursts — as little as 2½ minutes — with rest periods so that the grounds may fully absorb all the water, and yet receive their full required watering.

Northern grown PARK Kentucky bluegrass

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STRIPE SMUT OF TURF

(from page 12)

and can be controlled chemically only by the use of systemic fungicides. For the systemic fungicides to be effective they must be drenched into the root system immediately after application. The best results are obtained in the fall when the temperatures cool or early spring when the grass plants are dormant. Benomyl (Tersan 1991), thiophanate-methyl (Cleary's 3336), and triarimol are systemic fungicides which have effectively controlled stripe smut. However, this is not a permanent solution and repeated application will be required in subsequent years.

In addition to the destruction caused by the stripe smut fungus itself, Kentucky bluegrass varieties infected with stripe smut lose their resistance to the *Helminthosporium* spp. The systemic fungicides also seem to cause the *Helminthosporium* resistant variety to become susceptible. It is recommended that turf areas infected with stripe smut, in addition to receiving applications

Area on right was treated with a systemic fungicide. Bluegrass plot on left is severely infected with Stripe Smut. Note straw color of infected turfgrass.



of systemic fungicide, also receive an application of a fungicide that will protect against *Helminthosporium* disease, too.

Cultural practices will aid in reducing the severity of the disease. They consist of applying minimum amounts of nitrogen (not more than 3 lbs. of total nitrogen per 1000 sq. ft. for the season) and not allowing the turf area to become dry.

In summary, stripe smut is a very destructive disease of Kentucky bluegrass. Once a plant becomes infected with the disease it will re-

main so for life. Varieties of Kentucky bluegrass resistant to the stripe smut races prevalent today are available, but in the future after these have been widely grown, they probably won't remain resistant as new races of stripe smut will arise. Chemical control can be obtained with the systemic fungicides although it is not permanent. Applying minimum amounts of nitrogen to stripe smut infected turfs and not permitting the infected turf areas to become dry will aid in reducing the severity of the disease. □

Landscape Ambassador Joe Shaw Tells U. S. Story Abroad

The type equipment used and methods followed by landscape contractors in the United States was described by Joseph C. Shaw, South Miami, Fla., when he, the only participating American, recently spoke to members of the British Association of Landscape Industries' annual conference in London. He also attended the Sixth Congress of Land-

scape Contractors in Hamburg, Germany.

Shaw is head of Shaw Nursery & Landscape Co., and immediate past president of the 2000-member Florida Nurserymen and Growers Association. Particularly was the conference audience interested in his description of this, and other American trade associations. Many of the British contractors inquired about membership in the FNGA; some said they planned to attend the 1974 Florida convention.

He told his surprised listeners that competing American landscape contractors work together in staging training programs for their employees; that they are also urged to attend special schools pertaining to their work, as well as staff meetings.

In turn, Shaw was surprised to hear that the British landscape contractors charge their employees for attending similar events.

Another policy differing from that in the United States is their manner of competitive bidding. The high and low bidders are automatically excluded, leaving the selection to

come from the in-between bidders.

Shaw was invited to speak to the group again in 1974.

In Hamburg Germany, he admits being impressed with the convention facilities where talks are automatically translated into six languages, enabling an individual to hear a speech in his own country's language.

Shaw concludes that European landscape contractors are several years behind those in the U. S. in establishing standards and creating a professional image, both individually and industrywise.

This could be, he said, because for years landscape work was regarded as merely "gardening." However, attempts are now being made to upgrade the status of the landscape contractor-profession.

Two particularly outstanding events during the trip were the 140-acre flower show at Hamburg and the Tivoli Gardens in Denmark. Also, he and Mrs. Shaw visited the French Riviera where, he said, folks take great pride in the use of flowers and landscape plants. However, high rise apartment buildings already are replacing many greenhouses.

At one French nursery Shaw found an inventory of many plants peculiar to Florida and California, and even in some northern portions of the



Joseph C. Shaw

U.S., i. e., various varieties of palms, Norfolk Island pines, roses, citrus trees, Mimosa and Magnolia.

He was told in France that landscape contractors are required to pay a tax for having personnel attend annual training courses and, this is payable whether or not the employees participate.

The landscaping, or lack of it, in northern Italy was particularly depressing after having seen the specimen work along the French Riviera, according to this landscape contractor.

Two problems European contractors face, which are familiar ones in this country; working with landscape architects and taking jobs where not enough money is allocated to complete the work as originally planned.

The continent should be good pickings for plastic and metal container manufacturers. Mostly, only clay and wooden containers are used in the nursery and landscaping industries he said.

Use of Tandex For Highways Projected Upwards

New registrations and application techniques for Karbutilate-type weed and brush killing formulations can be expected to make these recently developed herbicidal materials particularly effective as cost-saving maintenance tools for highway maintenance programs.

This was the prediction of Frank Chestnut, manager of Niagara Chemical's industrial chemicals department, in a recent discussion of new developments in the weed control field.

He cited development programs, both completed and underway, for Tandex herbicide (which contains karbutilate as the active ingredient) that have demonstrated its ability to give extended control of many kinds of weeds, grasses, vines, brush, and difficult-to-kill woody species with a single treatment.

In field programs the compound has provided effective vegetation control along road shoulders and ditch banks, under guard rails and signs, and around light standards and bridge abutments. Uncontrolled weed growth in these areas can obstruct driver visibility, create fire hazards, hinder maintenance crews, and trap moisture that can corrode fences and other facilities.

Among the specific Tandex programs described by the Niagara executive are:

Field studies aimed at extending the number of weed and brush species for which the compound is granted registration. A higher-analysis granular form of the material was recently cleared for use in areas where scrub oak, manzanita, and chamise are problems.

Hand shaker packaging designed for applying the herbicide in localized areas to eradicate weeds, nuisance grasses and brush. Such spot treatments have been found especially useful in controlling vegetation that persists in growing where mowers cannot reach.

Use of basal (spot) treatments and pre-determined grid patterns to eliminate undesirable brush and vegetation without affecting the surrounding understory.

Researchers report that the karbutilate-based Tandex material may be unusually suited for such purposes. Upon application the compound is characterized by a high degree of vertical percolation (downward but not lateral movement in the ground) which minimizes effects on adjacent areas and results in very effective control of deeper-rooted species.

Mitts & Merrill Brush Chippers For...

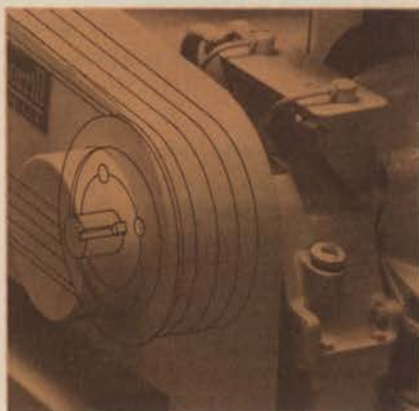


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For more than 115 years Mitts & Merrill has been making specialized machinery for industry. A major part of our business is equipment to reduce scrap and waste. This experience is incorporated into design features on our brush chippers that result in higher efficiency and longer, trouble-free service for you. Only Mitts & Merrill brush chippers offer features like these:



Staggered knife pattern for smoother cutting action. Mounted on an all-steel cylinder that, even without an external flywheel, is heaviest in the industry. Each cylinder revolution gives more cuts, produces smaller chips of uniform size. Self-adjusting knives are reversible; give twice the service between sharpening.



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For More Details Circle (102) on Reply Card

Northwest NGF Seminar Labelled Success

The first seminar on public golf course operations held in the Pacific Northwest was a success.

The seminar, sponsored by the National Golf Foundation and held at West Seattle Municipal Golf Course, attracted over 45 persons from Oregon, Washington, Idaho and Montana. Those attending represented both municipal and privately owned daily fee course operations.

Joe Much, northwest representative of the National Golf Foundation organized a program which included nearly all aspects of public golf course operations and development. The speakers included Jerry Clausen of the NGF on organization and financing, Ronald Fream, Los Gatos, California, on golf architecture and construction, Donald Hogan of Seattle, on irrigation engineering, Duane

Orullian, municipal golf manager from Pocatello, Idaho on public course management and maintenance. Others were Henry Land, Jr., Seattle city golf superintendent on course maintenance, Seattle attorney Carl A. Johnson on taxation and open space legislation, Stanley Francis on federal funds for recreation and Dick Haskell, Seattle director on golf and Ronald Fream on remodeling for public play at West Seattle golf course.

Two case history studies were also presented covering Lake Padden golf course and the Tumwater Valley golf course.

According to Joe Much, the 1974 program will be even more inclusive than that just concluded. The 1974 program will be held in the Portland, Oregon area at a site to be announced.

Mich. Turfgrass Field Day Draws Over 400 Turfmen

The annual Michigan Turfgrass Field Day was held at the Michigan State University Field Research Laboratory, East Lansing, on September 13, 1973. The event was sponsored by the department of crop and soil sciences at M.S.U. and the Michigan Turfgrass Foundation.

More than 420 professional turfmen from throughout Michigan attended. Numerous current turfgrass research projects were discussed: cultivar trials, blend and mixture studies, a turfgrass wear investigation, shade and disease studies, and numerous fertility investigations.

Toro Consumer Div. Slates Dealer Service Schools

The Toro Company is helping its U.S. network of distributors of consumer products to organize and staff a series of more than 100 dealer service schools to be held between Dec. 10 and April 1.

Ross E. Nelson, Toro's manager of consumer service, said the schools are expected to have the largest attendance in the company's history. Program content, he added, will be far more comprehensive than for any similar training school activity in the past.

In addition to extensive presentations featuring product improvements, school sessions will cover:

- the Consumer Product Safety Act and the Occupational Safe-

ty and Health Act as they apply to Toro dealers,

- service dealer procedures for maintaining financial records, determining shop labor rates and methods to increase service profits,
- a case study designed to involve dealers in simulated customer relations problems in typical day-to-day encounters,
- recommended service procedures for all Toro consumer products.

In preparation for the schools, Nelson reported, Toro will sponsor a series of regional seminars for distributor service management personnel.

These are scheduled for Nov. 19-20, Carson Inn., Itasca, Ill.; Nov. 26-27, Airport Marina, Burlingame, Calif.; Nov. 27-28, Ramada Inn, Atlanta, and Dec. 5-6, Hilton Inn, Syracuse, N.Y.

West Virginia Scientists To Study DED

An evaluation of resistant elm clones to new strains of the Dutch elm disease (DED) fungus will be made by scientists of the agricultural experiment station of West Virginia University, Morgantown, under a cooperative agreement with the U.S. Department of Agriculture (USDA).

SOUTHERN WEED SCIENCE SOCIETY

Come to Atlanta in January to participate in the 27th annual meeting of the Southern Weed Science Society. Speakers will discuss all aspects of weed science. Interpretation of the Federal Environmental Pesticide Control Act as it affects applicators will be a highlight of the meeting. In addition, sections will be devoted to agronomic crops, aquatic weeds and special weed problems, new developments in the industry and weed control in horticultural crops.

You are invited to attend . . .
Southern Weed Science Society

Sheraton Biltmore Hotel
Atlanta, Ga.

January 22-24, 1974

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Mobile Aerial Towers, Inc.	31
National Mower Co.	6
Pennstar Kentucky Bluegrass	13
Reinco, Inc.	43
Servis Equipment Co.	15
Stihl American, Inc.	21
The Toro Company	3-4
Twin City Seed	45
Vermeer Mfg. Co.	25
Warren's Turf Nursery	35

— classifieds —

When answering ads where box number only is given, please address as follows: Box number, c/o Weeds Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

Rates: "Position Wanted" 10¢ per word, minimum \$3.00. All other classifications 20¢ per word, minimum \$4.00. All classified ads must be received by Publisher the 10th of the month preceding publication date and be accompanied by cash or money order covering full payment. Bold-face rule box: \$25.00 per column inch.

HELP WANTED

PERSONS WITH HORTICULTURAL, entomology and agronomy backgrounds or related practical experience to fill positions as management trainees to learn the mechanics of our lawn spraying and general household pest control business. Our goal for you is promotion to middle or top management to fill our expansion needs. Several openings in different locations and salary ranges are available throughout Florida. We are a growth company (over \$1,000,000 annually) with aggressive but realistic expansion plans. Send resume (held in confidence) to: Ron Collins, Pres., R.W. Collins, Inc., P.O. Box 2477, Satellite Beach, Florida 32937.

GENERAL FOREMAN for tree service company in Rochester, N.Y. Experienced, active and imaginative person to organize and supervise 8-12 tree service crews (approx. 85 men). MUST HAVE proven background to lead an inspire men to work efficiently. Knowledge of tree work helpful, but not essential. Year-round salaried position. Company vehicle furnished. Hospital and pension benefits. Reply to: Mr. Robert G. Hooper, Monroe Tree and Landscape, Inc., 225 Ballantyne Rd., Rochester, N.Y. 14623. Phone 716 436-2900.

LANDSCAPE AND MAINTENANCE Manager — Great opportunity for the man who likes to be his own boss. Ability to work with public and personnel is important. Must have had considerable experience or education in landscaping or horticulture. Excellent future for the right person. Grow with the company. Starting salary \$10,400.00 plus commission paid on profits earned. Paid hospitalization and vacations. Write giving complete resume to Personnel Office, Jasso Tree Service, Inc., 9160 Eston Rd., Clarkston, Michigan 48016.

WASHINGTON TREE SERVICE, Inc. in Seattle has openings for 2 experienced climbers-trimmers. If you have background and experience to do quality work and are a sober, responsible person, this could be the opportunity you have been seeking. Year 'round job, excellent benefits including profit sharing plan. Relocation allowance to qualified persons. Write or phone: Lou Vaughn, Washington Tree Service, Inc., 20057 Ballinger Road, N.E., Seattle, Washington 98155. Phone 206 362-9100.

YEAR ROUND position open caring for all types of flowers, trees, shrubs on large recreational complex. Complete knowledge of ornamentals, perennials, annuals, pruning, spray-

ing, arranging a must. Salary open, liberal fringe benefits. Send resume with references to Patrick Lucas, Estate Maintenance Company, Federal Hill Road, Brewster, New York 10509.

WANTED — Self starter with sales ability — combined with a horticultural background — to contact and open new accounts in the sales of Agricultural Chemicals and Equipment to professional turf areas in Suffolk County. If you are the person to fill this position send resume, including salary desired, to: Box 105, Weeds Trees & Turf, 9800 Detroit Avenue, Cleveland, Ohio 44102.

DISTRIBUTORS for D. J. Andrews, Inc. stump cutter teeth, pockets and bolts. Best wholesale and retail price in U.S.A. Add to this exclusive area, local advertising at our expense, etc., and you have our story. D. J. Andrews, Inc., 17 Silver St., Rochester, N.Y. 14611. Call 716 235-1230, or 716 436-1515.

SALESMAN WANTED to cover Connecticut and New York selling shade tree chemicals, agricultural chemicals. Write Box 106, Weeds Trees & Turf, 9800 Detroit Avenue, Cleveland, Ohio 44102.

PARKS ASSISTANT, Waterford, Michigan. \$12,300 to \$13,550. 3 years experience and degree in parks or related field. Send resume to Waterford Personnel, 7336 Highland Road, Pontiac, Michigan 48054.

GOLF COURSE SUPERINTENDENT position open for experienced person. Send resume to M. W. Brandmeyer, St. Andrews Golf and Country Club, Ocean Springs, Mississippi 39564 or call 601 875-7771.

SEEDS

SOD QUALITY MERION SEED for discriminating growers. Also Fyking, Delta, Park, Newport, Nugget and Pennstar bluegrasses as well as fine fescues. We will custom mix to your specifications. Michigan State Seed Company, Grand Ledge, Michigan 48837. Phone 517 627-2164.

CROWN VETCH SEED: Penngift and Chemung varieties. Direct all inquiries to: Walter C. Mehlenbacher, Castile, New York 14427. Phone 716 493-2553.

ALL VARIETIES, straight or mixed to specifications, bluegrasses, fescues, bents, others. Markell Seeds, P.O. Box 3397, Green Bay, Wisconsin 54303. Phone 414 437-0851.



FOR SALE

SPECIAL CLEARANCE SALE — Real bargain in lawn equipment! Six sets only of heavy duty 3-gang lawn and turf rollers—perfect for smoothing lawns and large turf areas. Full-floating action of each unit follows ground shapes and contours. Rugged and long lasting, these 3-gang tandem rollers are built to stringent military specifications — USAF K14649. At front and rear of the extra heavy frame are self-cleaning bar scrapers. The roller units with water ballast drums each 28" long, 24" in diameter, come complete with frame and tractor hitch. It covers a 6'8" wide area in a single swath. Call Claude Sheldon, 815-672-2169 today for a special clearance price. The Flink Company, Streator, Illinois 61364.

DOUBLE EDGE sod cutter blades. Will fit any Ryan sod cutter. Works like double edge razor blade. Cuts much more sod per blade. Made to bolt on both ways. \$24.00 plus postage. New automatic sod loaders for direct loading to pallets, trucks or trailers. No workers needed on ground. Both products developed and designed by Hadfield. Write or call Glen Hadfield, 4643 Sherwood, Oxford, Michigan 48051. Phone 313 628-2000.

FOR SALE: Complete tree Service Company, located on West Coast, gross \$200,000.00 per year. Year round work. New spray rig, 3-2 ton dump trucks, 3-4 wheel drive pickups, 2 winch trucks, 3 chippers. Several other pieces of equipment. Box 180, Weeds Trees & Turf, 9800 Detroit Avenue, Cleveland, Ohio 44102.

CHAIN SAW CHAIN, bars, sprockets, sharpening equipment, saw parts and accessories. Save to 40%. Professional quality, fully guaranteed. World's largest mail order supplier of this equipment. Free catalog. Write Zip-Penn, Box 43073-A68, Middletown, Ky. 40243.

ARPS stump cutter teeth, top quality and best price in U.S.A., D. J. Andrews, Inc., 17 Silver St., Rochester, New York 14611. Call 716 235-1230.

MISCELLANEOUS

TREE APPRAISALS, SURVEYS, loss evaluations and expert consultation services. For names of members of the American Society of Consulting Arborists, Inc., throughout the country, contact: Executive Director ASCA, 12 Lakeview Ave., Milltown, New Jersey 08850.

USED EQUIPMENT

RECONDITIONED brush chippers, sprayers, log splitters, stump routers, bucket trucks. Let us know your needs. Equipment Sales Company, 5620 Old Sunrise Highway, Massapequa, New York 11758. Phone 516 799-7619.

RYAN heavy duty sod cutter with sulky roller. Excellent condition, \$1,500.00. Was used to cut eight acres much sod. R. Ward, 5100 Laubert Road, Atwater, Ohio 44201. Phone 216 947-2335.

trimmings

CLAUDE W. GIFFORD, USDA director of communications, has appointed Ray Brush, administrator of the American Association of Nurserymen, to the 1974 Yearbook of Agriculture Committee. The yearbook, which is a collector's item for some, draws attention in articles and chapters to significant changes and technologies taking place throughout the nation. The 1974 yearbook will be released in late 1974. It will give practical and research-based advice on how to buy everything from lawn seed to food to wood to clothing. Of primary interest to readers of **WEEDS TREES AND TURF** will be the thoroughness and credibility of articles and whether authors are selected who represent the subject and the Green Industry.

HOW LONG WILL BURLAP LAST on a B & B planting? The New Jersey Federation of Shade Tree Commissions decided to find out. They studied the rate of breakdown in the soil of a variety of burlaps and containers used for B & B (balled and burlapped) and containerized plants. Untreated burlap deteriorated in 6 months. In the same amount of time Format pots had just begun to break down at the base and at the soil line. Burlap treated with 0.2 percent copper naphthenate lasted 18 months. Treated Format pots began to deteriorate at the base and rim after 1½ years. Same was true for Hercules pots. Their deterioration at 18 months was at the base and along the seam. Green plastic burlap remained completely intact for the full 30 months of the study. Item to note: there was ample root penetration from all types of burlap including plastic. Plastic did not result in any noticeable effect on moisture differences between the sod and the soil ball.

WHAT IS ECOLOGY? Briefly, ecology is the study of the relationship of an animal to its environment. It attempts to understand how animals, plants, organisms, climate, soil, air and water fit together and affect one another.

LIKE THE CIRCUIT RIDER the gypsy moth keeps popping in for a devastating lunch in new areas. Latest victim states to find his tale-tale presence is Illinois and Indiana.

Leo G. K. Iverson, deputy administrator for USDA's Animal and Plant Health Inspection Service (APHIS) says that the gypsy moths probably didn't invade the area, but were brought into the states by recreational vehicles. It might not be a bad idea to install a free drive-through vehicle wash stand at the border of potentially endangered states.

EARL L. BUTZ, Secretary of Agriculture, said in addressing the Society of American Foresters, recently, one of the dangers of overreaction to the environmental-economic balance is pointed out in the effort to control the tussock moth. "The dying forests are reminders that we were a little precipitous in banning the only effective control method before we had found effective substitutes," he said. ". . . I was shocked by the devastation. No one can tell me that either nature or man is better off for this insect epidemic. . . . I agree whole-heartedly that we must step up research and development of alternatives to persistent pesticides. But at the same time, contingency approval for use of DDT appears to be the only course to seek for this next year. Effective and safe substitutes will be found. But we may not have trees on which to use these substitutes if the epidemic isn't stopped. "I am ready to lend my full sup-

port to seeking approval from the Environmental Protection Agency for making DDT available in the event we need it," he said.

BIOBEGRADABLE DDT has been patented by the University of Illinois Foundation, according to one report. Scientists have been able to alter one of the phenyl rings of the DDT molecule and cause biodegradability. No period of time for biodegradation has been mentioned. However, it was reported that the effectiveness of the Bio DDT is the same as regular DDT in laboratory tests.

POLITICIANS GOING FOR THE POT has been leaked from sources on Capital Hill. Seems that the National Botanical Garden has been supplying plants for congressional offices for a number of years. Sources say that what with the need for something green, demand has risen from 6000 potted plants in 1968 to over 9000 pots for politicians this year.

LOOKING FOR A GIMMICK? The National Bank of Commerce in San Antonio, Tex. has one that works. They gave evergreens to persons opening a new account, or depositing \$50 or more to an existing savings account. Total evergreens given in the six week promotion was 2200. Now that tradin' green for evergreen.

No Place To Exit?

Locking and/or chaining of exit doors in public buildings, theatres, sports arenas, and schools for "security" or other reasons is a serious violation, says the National Safety Council. Persons responsible for such violations are not only blamed, but subject to heavy fines and imprisonment.

Here's what the National Fire Protection Association Manual says about exit doors:

- 5-2131. An exit door shall be so arranged as to be readily opened from the side from which egress (exit) to be made at all times when the building served thereby is occupied. Locks, if provided, shall not require the use of a key for operation from the inside of the building.
- 5-2132. A latch or other fastening device on an exit door shall be provided with a knob, handle, panic bar, or other simple type of releasing device, the method of operation of which is obvious, even in darkness.
- 5-2162. Required panic hardware shall not be equipped with any locking or dogging device, set screw, or other arrangement which can be used to prevent the release of the latch when pressure is applied to the bar.
- 5-2171. No lock, padlock, hasp, bar, chain, or other installed or maintained at any time on, or in connection with any door on which panic hardware is required by this Code if such device prevents, or is intended to prevent, the free use of the door for purposes of egress (exit).