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# A Patch of Green

Official Publication of the  
Michigan & Border Cities Golf Course Superintendents Association

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# August Meeting

Davison Country Club was the host club on August 24 for our annual Golf Tournament.

Over sixty Superintendents and their guests played in the event. The golfers found a superbly conditioned golf course prepared for us by Walt Ostrand, the Superintendent, and Bob Minto, one of the owners. Davison has some of the finest Bluegrass fairways in the area.

The golf scores can attest to the difficulty of the course and just a few days ago, the PGA held a tournament there and found it equally as difficult.

Don Ross won 1st prize and Earl Prieskorn won 2nd place. Bob Fauteck of C. E. Anderson won 1st prize in the Associates category.

Host Pro, John Chester, should be congratulated for running a fine tournament for our members.

The educational portion of the meeting featured Ken Mills from Rain-Bird, compliments of Century Turf Irrigation Supply House. Ken traced the history of turf irrigation from the days of sprinklers and hoses to the present day of automation and all of its ramifications.

He stated the dirty water was the most critical problem in irrigation. One of his comments that stuck with me involved the use of the tensiometer as an additional management tool. I'm



Ken Mills, of Rain Bird Sprinklers, Speaker at August Meeting.

looking forward to the practical use of the tensiometer in my automatic system.

During the business meeting, Ted Woehrle was nominated to have his name placed on the National Slate which will be presented in Cincinnati this winter.



Roger Gill, Bert Bradshaw, Walt Ostrander and Superintendent/Owner of Davison C.C., Bob Minto.



Don Ross, winner of First Prize, Golf Tournament, Davison Country Club.



## The President's Message

Our organization has been allowed to offer our services to the public recently in articles written by members for The Detroit News. We owe a sincere debt of gratitude to June Hicks, Garden Editor for the News as well as Don Benhan, Sales Manager for National Chemsearch, for making it possible. This has been successful from several standpoints, but primarily for the chance to improve our image of the Greens Superintendent in the eyes of the public. Through the articles we have shown that we are not a bunch of grass cutting farm boys gone city slicker - Our profession is being elevated to its proper level of recognition through efforts of this nature.

Our job doesn't stop at our own golf course or our own organization and we shall continue to serve the public in any capacity possible. This has truly been an opportunity to serve and everyone has benefitted.

Comments from people form all walks of life have resulted from this publicity and all have been favorable.

It gives you a good feeling doesn't it? Let's all keep up the good work.

Your President,  
Ward Swanson

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## JIM BEARD HONORED AS FELLOW IN ASA

James B. Beard, professor of crop and soil science, at Michigan State University, was elected a Fellow in the American Society of Agronomy (ASA) at the society's recent annual meeting at N.Y.C.

Beard was cited for his contributions to the knowledge of turfgrass management. His research includes environmental physiology, ecology and culture of turfgrasses with emphasis on heat stress, winter injury, adaptation to shade, thatch, the ecology of turfgrass communities, roadside establishment and sod production.

## PRECIPITATION RATES OF SPRINKLERS

*Taken from "GROUNDS MAINTENANCE", January, 1969*

The precipitation rate of sprinklers refers to the amount of water in actual depth placed on the ground. It is expressed in depth to the nearest hundredth of an inch in the same manner that rainfall is measured. The primary difference is that sprinkler precipitation is expressed in inches per hour of application while rainfall is usually given for a 24-hour period. Sprinkler precipitation can be measured with standard rain gauges. The figures are averages applied over the entire area of coverages.

The precipitation rate is normally used as a selection factor for choosing sprinklers which apply water at a desired rate, usually one which is compatible with the infiltration rate of soils to be watered. The coefficient of uniformity is used to determine the efficiency of the sprinkler and the spacing in distributing that precipitation uniformly over the irrigated area.

Dr. Paul Rieke explaining proper method used in taking soil samples.



# “Let Some Grass Grow Under Your Feet”

The above catchy title was used to introduce the TURF GRASS FIELD DAY held at Michigan State University, East Lansing on Thursday, September 9, 1971. The Field Day was sponsored by the Department of Crops and Soil Sciences at Michigan State University, the Michigan Agricultural Experiment Station, the Michigan Cooperative Extension Service, and the Michigan Turfgrass Foundation.

Topics of discussion on the Field Day program included the following:

1. Symptoms and correction of turfgrass injury from oil, gasolines, salt, surfactants and hydraulic fluids.

Conclusions - All do considerable damage. Some of the materials used, such as charcoal, surfactants - which were used to alleviate damage, did little good. Results are inconclusive.

2. Evaluation of 20 bentgrass varieties for greens. Toronto, Penncross still look excellent.

3. Varieties and fungicide programs for bentgrass fairway-type turfs. Visually, Toronto, Cohansey, and Penncross ranked high. However, they are considered to have excessive thatch and puffiness when mowed at fairway height. Seaside is a preferred fairway grass. Highland is ranked last.

The new Tersan 1991 systemic ranked high in controlling dollar spot.

It held dollar spot in check for approximately two months.

4. Modifying the turfgrass environment through syringing, topdressing, etc. Soil moisture is one of the most easily modified components of the turfgrass micro-environment.

Temperature is important but not easily controlled except through syringing. Syringing for turf grass cooling should be considered when soil temperatures approach 75 degrees F. Where the objective is to modify temperature, the syringing application should be made between 11:00 A.M. and 12:00 noon. A syringing made at 1:00 to 2:00 P.M. has little effect on the turfgrass temperature. However, should wilt occur, syringing should be done between 12:00 noon and 2:00 P.M.

Winter protection - Conwed Winter Protection Cover, Soil Retention Mat, Saran Shade (94%), and topdressing are good materials. The topdressing practice is primarily effective in preventing winter desiccation. Use 0.3 to 0.4 cubic yards per 1,000 square feet for best results.

5. Turfgrass soil sampling, tests and interpretation.

A. Use clean equipment to prevent contamination of the soil sample.

*Continued on next page*

## MSU Field Day Cont.

B. Use a soil probe or small garden tool to obtain 15 or 20 subsamples from the 0-2 inch depth. Combine these into one composite sample. If a problem area is to be tested, collect one composite sample from the problem area and a separate one from a normal area.

C. Mix each composite sample well. Allow to air-dry.

D. Record information as to the location of the sample (especially if more than one sample is to be tested).

E. Send about 1/2 pint of soil in a suitable container (preferably not glass) to your soil testing lab. Include any pertinent information which would help in interpretation, especially if a problem exists.

F. Keep the soil test results. They should be helpful in determining the success of your phosphorus and potassium fertilization program, especially for the professional turfman.

These are just a few of the things shown and discussed at the Field Day.

All the research projects will be formally discussed at the 42nd Annual Michigan Turfgrass Conference to be held at the Kellogg Center, MSU campus on January 18 and 19, 1972.

Circle this important date on your calendar NOW!

Dr. Paul Rieke of MSU returned from his six month leave of absence in time for the Field Day. We welcome him back.

Al Turgeon moves to the University of Illinois. We wish Al all the luck in the world in his new position at the U of I. He will be working in Turf at Illinois. We'll miss him. He did some wood work in Weed Control here at MSU.



Dr. James Beard MSU Staff member explaining temperatures and wilt problems.



Several groups attending Turf Field Day at MSU.

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## TORO ACQUIRES 'LANDSCAPER' LINE

Toro Manufacturing Corporation, the nation's leading independent producer of powered lawn-care equipment, purchased from Viking Manufacturing Corporation, of Manhattan, Kans., all rights to the Viking Roller Blade line of turf-conditioning equipment.

The versatile machine, called the Toro Landscaper, is produced in Toro's Minneapolis plant and is marketed by Toro's Turf Products Division. Available in four models, the Toro Landscaper ranges in width from the 3 (36 inches) to the Landscaper 6 (72 inches). It combines a scarifier, a blade, a box scraper, a depth gauge wheel, a clodbusting roller, a fertilizer spreader, a grass seeder, an aerator and a slicer — all in one implement.

One man, with a tractor that has been fitted with a Toro Landscaper, can install a new lawn or renovate an old one. In preparing new lawns, the scarifier teeth loosen and break up compacted soil. The leveling blade, which carries the scarifier, floats between the grid roller and the rear tractor wheel, leveling the seed bed.

A unique mesh roller breaks up clods, leaving the seed bed as smooth as a hand-raked surface. The roller makes a diamond grid pattern which traps water in thousands of small pockets, preventing oil and seed erosion.

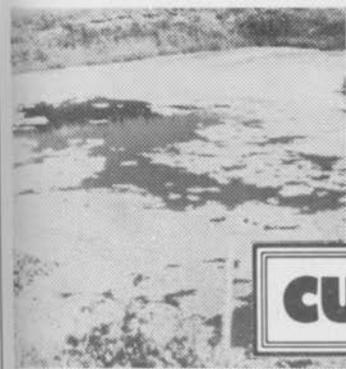
In the larger Landscaper models, separate hoppers carry seed and fertilizer. Feed rates, through a patented metering device, can be individually adjusted to assure the best proportion for any soil condition.

In renovating turf with dead areas, or when overseeding dormant grass, such as bermudagrass in winter, coulter blades (optional) slice and lift the turf just enough for the seed to flow into the slits in the turf. The roller then closes the slits and compacts the soil. Used in this fashion, the Toro Landscaper will not interrupt play on a golf course fairway or a park.

In renovation, the Landscaper is used as a drill-type seeder. The machine may be used either as a drill or as a precision broadcast seeder in preparing new lawns. The largest model, Toro Landscaper 6, can seed turf areas at more than two acres an hour. The smallest size, Landscaper 3 is three feet wide and can be easily be pulled by a lawn tractor.

### GOLF DAY - A SUCCESS!

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# AUTOMATIC IRRIGATION FOR TODAY'S GOLF COURSE

by Ron Graves, Chicago Sales Engineer, Miller Sprinkling Systems

Irrigation, the application of water to the soil, is playing a leading roll in the establishment of the type of golf course that is being demanded by the golfing public today. With the new and increased technological advancements of the automatic irrigation systems, the Golf Course Superintendent can provide a course with more natural beauty and better playing conditions throughout the golfing season. This is brought about by the increased control the Superintendent has over the water which, in turn, dictates the quality of grass grown.

Looking from both agronomic and golfer standpoints, the following are a few of the many reasons an automatic irrigation system will benefit the modern golf course today:

*Central Programming* - Central programming has been developed to provide for the complete control of the irrigation system from one central location, usually the Superintendent's office. The purpose of the Central Programmer is to activate the Field Controllers simultaneously by means of automatically controlled timing clocks, or manually. These field units are located throughout the golf course in close proximity to the valves being controlled. In addition to initiating the normal irrigation program which is set in the field units, the Central Programmer is the means by which the syringe cycle is activated. When the desired syringing is completed, the Field Controllers are returned to the normal program.

*Less Labor Involved* - Since automatic irrigation is a one man operation that requires little time to program the system, your labor costs will drop considerably. One Superintendent who recently had an automatic system installed on his eighteen-hole golf course stated that his normal crew of

fifteen men during the golfing season was dropped to thirteen men. The two less men were night water men paid at a 50 cents hourly shift premium. The estimated savings was between \$5,000 and \$6,000. In addition, savings of \$2,000 to \$3,000 were made by having the syringe cycle that replaced the men he used for hand watering greens and tees for dew or fertilizer.

*Less Chance of Overwatering* - Until automatic water was introduced, the Superintendent had very little control over the amount of water being applied to his golf course. The irrigation program usually consisted of sending out the watering crew to change the settings every one half to one hour depending on the grass requirements and type of water supply. In some cases too much water would be applied between the settings because they did not have sufficient time to make the rounds. In addition to this, he would sometimes be required to "dump" the water on in order to maintain the turf through periods when help was not available, such as a holiday weekend.

Overwatering results in serious soil compaction and weakens turf and destroys resiliency. A vigorous turf and the right mixture of soil along with the proper amount of water will provide the qualities necessary to hold the golfer's shot that is well played. Nothing is more discouraging to a golfer than to see a well placed shot bounce or roll over a green.

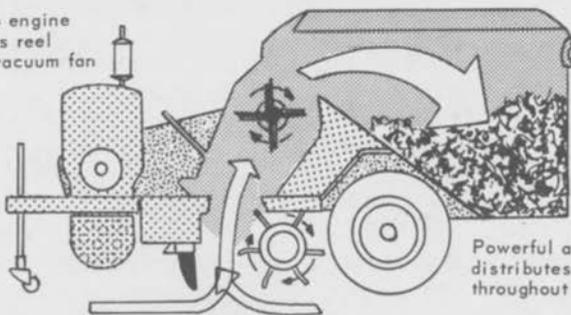
In addition to the above, excessive moisture causes the roots to become shallow and restricted which, in turn, makes the turf more susceptible to disease. Along with this, excessive moisture produces lush grass and thus, makes it more prone to disease infestation.

*Continued on page 11*

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Or you may contact the next golf course supplier that calls on  
you and give him the information needed for application.

## Irrigation Cont.

*Conservation of Water* - In a time when the public has become conservation conscious due to the increased population growth and industry expansion, there is increasing concern about the impact this growth will have on man's environment. With today's golf courses being maintained primarily by chemical means rather than mechanical tools we should consider the effects of overwatering and how it can produce runoff that may cause pollution if allowed to enter public waterways. By use of today's automatic systems, we can better control runoff and help conserve our most important resource by our ability to apply water in light frequent applications.

*Ability to Help Control Disease* - Disease prevention goes hand in hand with the problem of overwatering. The organisms that cause serious turf disease develop most rapidly when soil moisture is high. The fungi that cause turf disease need liberal quantities of

moisture for germination of spores and sclerotia, and to keep the mycelium strands growing actively. The latter are very delicate and cannot withstand drying out. Saturated soils and high humidity create ideal conditions for their rapid development along with poor drainage and excessive rains which keep soils waterlogged for long periods of time. Heavy dews that keep the foliage wet for long periods of time is a big factor that favors fungi growth. This is where the irrigation syringe cycle proves to be very beneficial. With this cycle dew can be removed from the entire course in a matter of minutes.

*Wilt Prevention* - Turf can be protected against wilting in periods of hot, windy weather by frequent applications of limited quantities of water to reduce transpiration rates and soil temperatures. Wilting occurs when plants transpire (evaporate) water from the leaf surfaces faster than the

*Continued on next page*

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## Irrigation Cont.

roots can take it up from the soil. This is another application where the syringe cycle is successful in providing the needed moisture.

*Grass Type Selection and Plant Establishment* - Since turfgrass varieties require different amounts of water for proper growth and development, the controlled use of water by means of an automatic system will enable the Superintendent to select the type of grass that is best suited for his course. For instance those grasses such as bentgrass and *Poa Annu* possess shallow root systems. These grasses will require frequent watering as compared to the bluegrasses and fescues which have a deeper root system that can withstand less water. The reason for this is the greater surface area of the deep rooted plants. In cases where a deep rooted plant has shallow roots it is possible to increase the surface area by watering less.

The automatic irrigation system is also beneficial in establishing new seedlings and vegetative plants because you can apply light frequent applications of water that will not wash, puddle, or crust the soil surface.

*Prevention of Winter Drying* - In cases where you have limited late season rainfall and/or little snowfall throughout the winter, excessive drying out (desiccation) of the grass may take place. With an automatic system it is possible to turn on the water during the winter to restore the needed moisture on the upper level of the soil.

*Control Placed In The Hands Of An Expert* - Since water comprises 80% or more of the grass plant and between 500 - 600 pounds of water is required to produce 1 pound of dry matter, it is a small wonder of the importance of proper water management in maintaining a high quality golf course.

It is impossible for anyone to tell the Superintendent what the proper water management is for his golf course. The amount of water required will depend upon the type of grass, the

locality, and the physical characteristics of the soil. With an automatic system the watering program is placed in the hands of an expert, the Superintendent. No one knows better than he the requirements of his golf course.

During the past decade we have witnessed a phenomenal growth in the number of golf courses in the United States. Such factors as more leisure time due to shorter work weeks, better access to golf courses by means of interstate road systems, and more money to spend on recreation (taking into account inflation) have all contributed to the increased popularity of the sport of golf. In order for us to cope with the heavy play brought about by these factors, we must think management. For the reasons stated in this article, automatic irrigation on today's modern golf course is one of the prime requisites for proper turfgrass management.

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**Charles Croley**

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# ISN'T IT FUNNY!

*Isn't It Funny* - when the other fellow takes a long time to do something, he's slow. But when I take a long time to do something, I'm thorough.

When the other fellow doesn't do it, he's too lazy. But when I don't do it I'm too busy.

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When the other fellow goes ahead and does something without being told, he's overstepping his bounds. But when I do something without being told, that's initiative!

When the other fellow states his side of a question strongly, he's bull-headed. But when I state a side of a question strongly, I'm being firm.

When the other fellow overlooks a few of the rules of etiquette, he's rude. But when I skip a few of the rules, I'm being original.

When the other fellow does something that pleases the boss, he's polishing the brass, but when I do something that pleases the boss, that's cooperation.

When the other fellow gets ahead, he sure had the lucky breaks, but when I manage to get ahead, man! it was hard work that did it!

Funny, isn't it - or is it!

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## TORO ACQUIRES TEX-WAY

David T. McLaughlin, president of Toro Manufacturing Corporation, reported Toro's acquisition of the assets of Tex-Way Industries, Inc., Fort Worth, Tex., developers of specialized environment control equipment.

The purchase gives Toro a series of hydro-mulching machines that provide the most uniform and economical means of establishing vegetation on any type of terrain by spraying mixtures of water, seed, fibrous mulch and fertilizer.

Tex-Way was headed by Ralph E. Martin, who became a Toro consultant under the terms of the agreement. Tex-Way's general manager, Ralph W. Gebhardt, was named sales manager for this new Toro venture, the first in a new Toro profit center named Eco/Systems.

McLaughlin said development and

marketing of the hydromulching machines will be directed by Edward A. Hunnicutt, manager of special projects in the division of corporate development. Hunnicutt holds a B.S. degree in agronomy from Purdue. He joined Toro a year ago as a marketing representative for turf products. Gebhardt, who will maintain an office in Fort Worth, has worked in the field of hydro-mulching for the past nine years.

The hydro-mulching method of establishing turf has been adopted for major construction programs, particularly federal interstate highway systems. Other applications include parks, athletic fields, playgrounds, golf courses, housing developments, and land reclamation work, such as strip mine areas and other terrain where growth establishment is difficult. McLaughlin said that one hydro-mulching machine can cover up to five acres in 15 minutes in a one-step operation that eliminates the immediate follow-up maintenance that seeding normally requires.

Toro's new hydro-mulching machines, which range in capacity from \$5,000 to \$8,500, are designed to handle all the spraying chores landscape contractors may encounter, including chemical spraying, liming, firefighting and watering, as well as hydraulic seeding, mulching and fertilizing.

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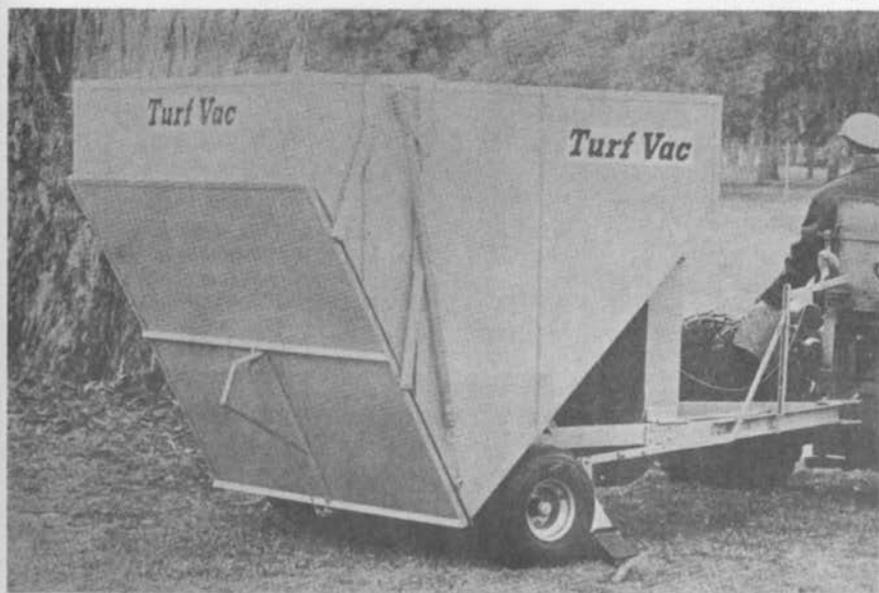
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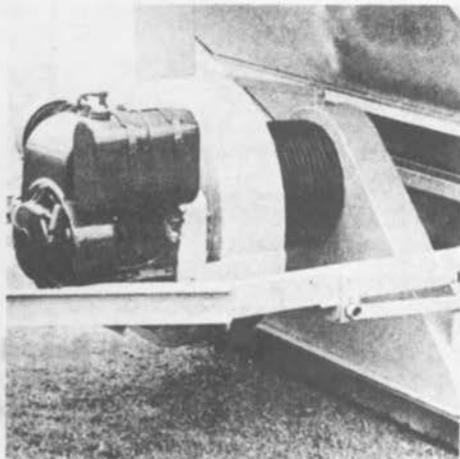
**Hopper:** 5 cu. yards  
Welded steel construction

**Overall:** Width 5'-4"

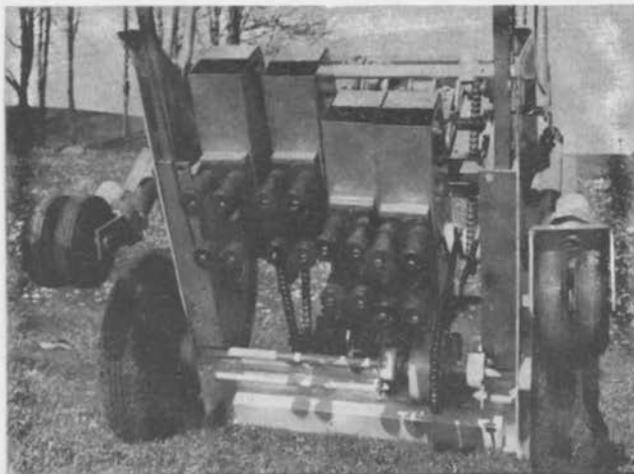
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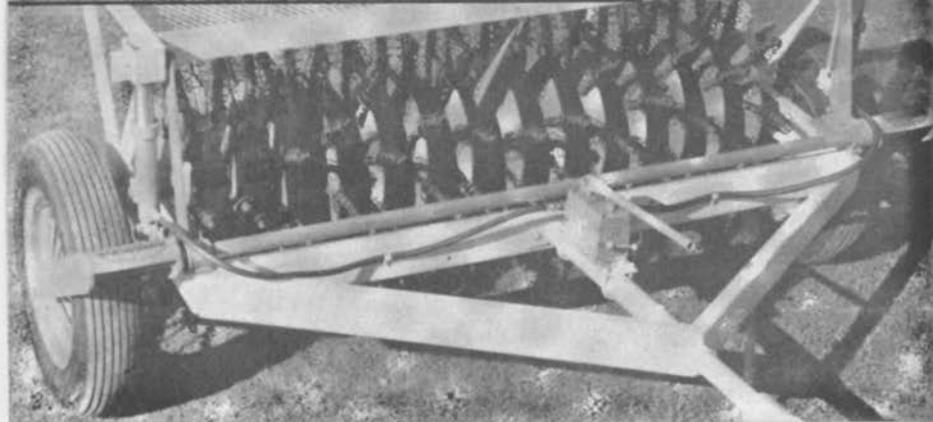
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## GRASSLAN AERIFIER

Designed to cultivate without disturbing fine turfgrass areas.



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**"A Patch of Green"**  
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