on the importance of syringing to lower the temperature of the turfgrass from going into stress. The eye appealing talk by Mr. Bidwell on what flowers can do for you on your golf course, clubhouse and club entrance area and the impression it leaves on people. Dr. Larsen's re-emphasizing the point on not applying the same chemical back to back in order to prevent disease resistance to the chemical. Even with the newer and longer acting chemicals, don't get yourself in trouble as happened with that of Benomyl overuse and abuse. And finally Don Herfort's talk on the do's and don'ts of designing a new green. A special thanks goes out to all the speakers; Don Lindblad and his staff at Majestic Oaks for another fine meal and facility; our session chairpeople, Chris Hague, Hazeltine, and Scott Hoffman, Madden's. With over 180 served for lunch (that's 30 more than last year) it's a credit to our committees and association as a whole that the educational seminars are so well arranged and attended.

Coming addition in the HOLE NOTES, if all goes well, will be a "Question and Answer" section. Questions submitted will be answered by the experts. No matter what your question is, write it down, no names, send it in (I'll tell you where next issue) and we'll answer it as soon as possible.

COMING MEETINGS:

April 15: New Prague Golf Club, Scott Proskhek and Bob Adams, hosts
May 13: River Falls Golf Club, Scott Ainsworth, host
June 19: Turf Expo
June 30: Annual Picnic
July 8: Northland Country Club, Mike Netzel, host
Aug. 12: Island View Country Club, Mark Poppitz, host
Sept. 9: Guest Day Scramble at Hazeltine National, Chris Hague, host
Oct. 7: Golden Valley Country Club, Mike Olson, host

NEW TRENDS IN TURF MANTENANCE EQUIPMENT
PART 1
by JAMES KAUFMAN
MTI DISTRIBUTING COMPANY

A subject such as this usually invites the reader to anticipate miracle products and sensational solutions to the everyday job. Advancement in technology is rather rapid when you consider it in 50 year increments. But please keep in mind, the process in bringing to market, machines that are better than 10 and 5 years ago, is a slow painstaking one. This article will discuss a variety of maintenance considerations and what better products may be available for handling them more effectively.

WEIGHT
Lighter weight and less compaction is a turf man's goal for almost any piece of equipment. Recognizing this, industry will make improvements through new design and materials, resulting in less overall size, and with less weight being the trend. Reduced ground pressure (pounds per square inch) will come about through lighter weight and higher strength materials, lighter weight engines, and the judicious use of floatation type tires.

NOISE
There has been a long term trend to quieter products. The European market is most noise sensitive and has led the world in low noise design. The standards for privacy will become more strict as the consumer environmental concern marches ahead. Noise suppression will evolve with more attention paid to the multiple sources of noise. As an example, of a rotary mowers total machine noise, at least as much noise comes from the blade as comes from the engine exhaust. One hears the loudest sound, while much of the other contributing noises are subordinated. The internal parts of an engine [valves], etc., plus transmissions all add to the total noise impact. Considerable art exists today in tuning noise to a certain tone; thereby lessening its impact. Even though the decibel rating may be higher, the tone of the continued on Page 13
WHAT MAKES THE CUSHMAN TURF-CARE SYSTEM WORTH THE INVESTMENT:

Aerating, hauling, dumping, spraying, seeding, spreading and top dressing — one vehicle does the work of a fleet of machines.

The Cushman Turf-Care System offers you a single vehicle that can do the work of a half dozen machines — at a fraction of the cost.

The exclusive Cushman pin disconnect system lets you attach and remove accessories in minutes.

A NEW 22-HP ENGINE.

The Cushman Turf-Truckster™ is now equipped with a new 22-hp gas engine. It gives you the power to haul a full load uphill, without straining. It maintains a sure, steady speed while you're spraying or spreading.

And it's built tough. The crankshaft is forged alloy steel. The cylinder heads are reinforced for extra strength under stress. And the hydraulic pump is mounted to the engine for better service life and smooth operation.

Team up the new 22-hp Turf-Truckster with any of the following accessories for a complete Turf-Care System.

THE AERATORS.

Because you have two types of turf to aerate, Cushman makes two aerator attachments for your Turf-Truckster.

The Greensaver® is ideal for greens and other delicate areas... while the Quick Aerator makes short work of big jobs (it covers a 46" swath).

Both can be equipped with interchangeable coring or deep-slicing tines.

THE DUMP BOXES.

Again, you have a choice! Our Short Box is a high quality dump box... and our Flatbed/Box converts from flatbed carrier to dump box just by adding the bolt-on sides and tailgate. Both can be hydraulically dumped right from the driver's seat.

THE SPREADERS.

Two choices here, too. The 700-lb. capacity Vicon Spreader with a 45' swath. Or the Spreader/Seeder with a 300-lb. capacity. Both give you smooth, uniform spreading because application rates are controlled by the Turf-Truckster's ground speed governor.

TEAM UP THE NEW 22-HP TURF-TRUCKSTER WITH ANY OF THE FOLLOWING ACCESSORIES FOR A COMPLETE TURF-CARE SYSTEM.

THE SPRAYERS.

Choose the capacity you need... our big 150-gallon sprayer or 100-gallon model. Both give you uniform spraying controlled by the Turf-Truckster's ground speed governor.

THE TOP DRESSER.

Everything from rock salt to powdered fertilizer can be uniformly spread across a 31 1/2' swath at a rate of up to 220' per minute.

A FREE DEMONSTRATION

See the Cushman Turf-Care System in action.
noise is sometimes more important. As these specialized areas of attention progress, the customer's expectations and demands rise. Last year's standards becomes next year's minimums. Noise technology is better understood today than ten years ago, and will contribute to quieter running products as industry progresses.

RELIABLE - DURABLE

The turf industry in general is becoming more aware and more demanding for quality, reliability and durability. The competitive aspects of the market bring a greater focus on this subject and the end users will have a greater choice of products in a quality range. One category that demonstrates this upward trend in quality is the mid-sized rotaries, 32" to 52" walk behind units. These products today have become very sophisticated, including fingertip steering. A significant upgrade in the power plants on these products makes them very durable, performing jobs as well as products that are several thousand dollars higher in cost. The trend will continue to upgrade the life hour length of engines and machines.

CONTINUED IN MAY ISSUE

FOR SALE

1979 Jacobsen F-10 1/10 blade reels 726 actual hours..good condition $18,000. Contact Doug Mahal at Interlachen C.C., 929-5352.

One used Toro 3 gang Tee Mower Mayflower Country Club Fairfax, Minnesota 55332

1. 7-1979 - 7 blade spartans
2. 1960 International cub Tractor/rotary
3. 1972 Simplicity Garden Tractor/48" rotary, 42" snow blower & 36" rototiller
4. 1968 Jacobsen Turfking CALL JIM LINDBLAD, 473-6955

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Source Technology Biologicals, Inc. (STB) offers a money-back guarantee for its product PHYTON-27™

STB guarantees that PHYTON-27 will be effective in treating elms with up to a 15% Dutch elm disease infection at the time of treatment. STB makes its guarantee for a full two years after the date of the initial injection.

The guarantee applies only when the injection is performed by an applicator certified by STB.

Qualifying as a certified applicator will start you on your way to developing a guaranteed treatment approach to manage your elms.

STB provides much of the know-how assistance to become a certified PHYTON-27 applicator.

**RECORD OF SUCCESS!**

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<th>Number of elms visually evaluated as D.e.d. free, three years after treatment</th>
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FOR MORE INFORMATION

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