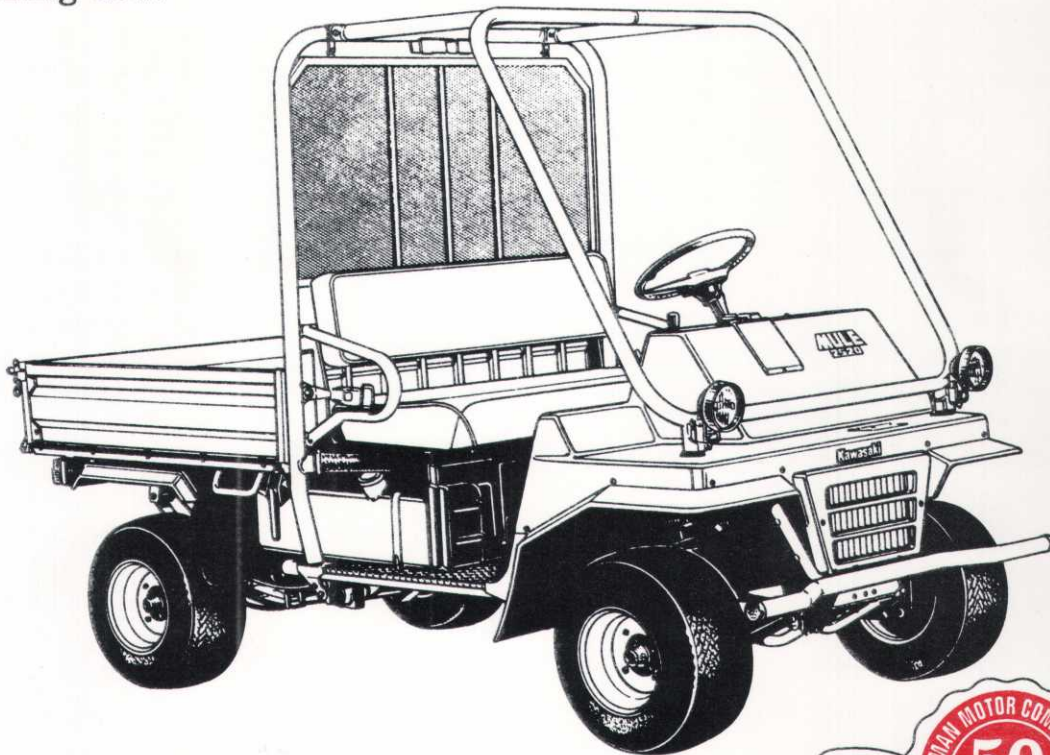


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Official Publication  
of the  
Minnesota Golf Course  
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## FROM YOUR PRESIDENT'S DESK

### Annual Budget Was Main Topic of Discussion At May Board Meeting



The main topic of discussion at this month's Board meeting was the 1999-2000 annual budget. After a long debate of trying to lower expenses and generate more income, the budget was voted on and passed unanimously. It will show a loss of about \$1,900 which will have to be covered by adding money from our savings account to achieve a balanced budget. The savings has the money to cover the loss this year, but we will not be able to continue to draw from our savings account for very long.

**One of the solutions to the shortfall** was to increase the cost of the monthly meetings because this is one area where we lose money. With the new format of having speakers at the monthly meetings next year, additional money will be needed to support the program. The Board decided on a close vote that the meetings, starting this summer, will cost \$30. The other solution as mentioned in previous correspondence is to raise membership dues. This may be done one year at a time or may be a certain amount to cover a three to five-year frame. These questions will be answered at next month's Board meeting. A decision will be made on how to cover the deficit and balance the budget.

\* \* \* \*

**I would like to thank Mike Brower and Hillcrest Country Club** for hosting the May meeting and providing the use of their golf course for our event. Mike also gave a very informative speech on some of the construction that has taken place during the last few years at Hillcrest.

\* \* \* \*

**Thanks also go out to Jim Nicol, CGCS, Hazeltine National Golf Club,** for the excellent p.r. he gave superintendents by being a guest on KFAN Radio's "Tee to Green" with Dan Cole and Craig Waryan on April 18. We hope to have more MGCSA members on this weekly show in the future.

\* \* \* \*

**Please keep Pat Walton in your prayers.** He was diagnosed with a brain tumor. Fortunately it is not cancerous and hopefully, with treatment he will be well soon.

\* \* \* \*

**On behalf of the association** I would like to extend condolences to Brian Mowry and his family. Brian's 3-year-old daughter, Alysso Jo, passed away in May.

\* \* \* \*

**Our next meeting is at Benson Golf Club.** Hope to see a good turnout!

— Thomas Fischer, CGCS  
MGCSA President

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# Turfgrass Diseases You May Not Have Seen Yet

By JON F. POWELL

University of Minnesota, Department of Plant Pathology

Since the report of the first turfgrass disease in 1912, new diseases have developed every so often. In the early '80s we first heard of bacterial wilt caused by a bacterium called *Zanthomonas campestris* and necrotic ring spot was identified and led to further understanding that "fusarium blight syndrome" was really two different diseases, summer patch and necrotic ring spot. At this year's Turfgrass Disease Seminar, sponsored by Rhone-Poulenc, two diseases were discussed by Dr. Peter Landschoot (Pennsylvania State University) that may be in our futures.

## Gray Leaf Spot

It is likely that you have heard of gray leaf spot, caused by the fungus *Pyricularia grisea*. It is not really a new disease of turf, previously known as a pathogen to St. Augustine grass, but it has developed in a new epidemic that is spreading across the country. This recent epidemic was first noted in 1991 with spread of the disease through Maryland, Pennsylvania, Virginia and Kentucky by 1995. The disease has further spread through Ohio, Oklahoma, Kansas and Iowa as of 1998. Since the first report of this most recent epidemic, the disease has spread in a westerly and northern direction. It is likely that the disease will spread into southern Minnesota, but it is still uncertain how far north this disease will spread.

**So what is gray leaf spot?** It primarily infects St. Augustine grass and perennial ryegrass, but also may infect tall fescue. The greatest concern of this disease is that it can be as destructive as pythium blight, with collapse of large areas of turf within 3 to 5 days. The disease occurs from late July through the first hard frost of fall. Disease first appears in heat sinks, compacted areas and in the roughs. Following loss of turf, these areas are difficult to reseed and germinating plants are highly susceptible to damping off symptoms.

**What sort of things should you look for?** The first obvious symptoms of infection will be general wilting of the turf. Wilting will occur despite the adequate moisture availability. Within 24 hours leaf blighting develops accompanied by collapse of the plant. Individual plants will initially appear water-soaked followed by tip dieback. These leaves will exhibit a curved or fish hook appearance. This is most obvious in the youngest leaves. Lesions, varying in color from grey to brown, may develop along the margins of infected leaves. Abundant teardrop-shaped spores develop on both sides of infected leaves.

**What can be done to manage this disease if it occurs?** As with Pythium blight, there is little time for action before significant damage occurs. Once the plants develop the curved or fish-hook appearance, fungicide applications will not save the plants. Recommended curative treatments include Heritage (0.2 oz), Cleary's 3336 (6 oz),

Lynx/Thalonil (0.28 oz/1.7 oz) or Banner/Thalonil (1 oz/1.7 oz). While these treatments provided the best protection, they did not provide complete management. However, their effectiveness is recognized when contrasted to near 100% turf loss in untreated plots within five weeks time.

**What can be done to prevent gray leaf spot?** Cultural practices to limit gray leaf spot include not using plant growth regulators, avoidance of night irrigation, removal of clippings. Reducing turf height prior to disease development is recommended. However, once blighting is evident the cutting height should be raised. Preventative fungicide treatments beginning in mid July with Cleary's 3336 (6 oz), Heritage (0.2 oz) alternated every two weeks with Daconil (3.8 oz), Compass (0.1 oz), Banner (1 oz), Bayleton (1 oz), or Lynx (0.28 oz) are effective in protecting perennial ryegrass from gray leaf spot.

While gray leaf spot is raising concern among many, if you do not have perennial ryegrass you don't have to worry. Even if you have perennial ryegrass, there has not yet been a confirmed report of gray leaf spot in Minnesota. Until then, it is best just to keep an eye open for what may be a problem.

## Fall Dead Spot

The other disease discussed has not formally received a name, however "*Ophiosphaerella* dead spot" and "fall dead spot" have been proposed. The causal agent is a fungus identified as *Ophiosphaerella agrostis*. As the name of the fungus implies, it is a pathogen of creeping bentgrass. Symptoms start out as patches similar in size to those of dollar spot which develop in late August and early September, becoming irregularly shaped and 3-4 inches in diameter. These patches start out dark brown in color, then becoming tan with pinkish. Whereas dollar spots are generally superficial, patches caused by this disease form crater-like pits in the turf reaching down to the soil. These crater pits appear to develop in the same spot year after year.

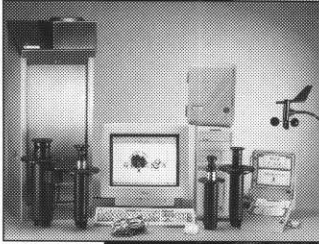
Predisposing factors include extended warm dry periods with temperatures of 75-85° F as well as young greens that are lean on nitrogen. Fungicide applications of Chipco 26 or Cleary's 3336 in conjunction with Daconil or Fore are effective for managing the disease. Whereas this disease is not as devastating as gray leaf spot, the production of crater-like pits on a creeping bentgrass putting green can prove disruptive to play. This disease has been identified from Pennsylvania to the Chicago area of Illinois and it is not unlikely that it will reach Minnesota.

New diseases develop for a number of reasons including the introduction of exotic pathogens from overseas and changes in turfgrass management practices. The information provided is intended to help keep you informed of new developments in turfgrass pathology, and enable you to keep an eye open for new diseases that you may encounter.

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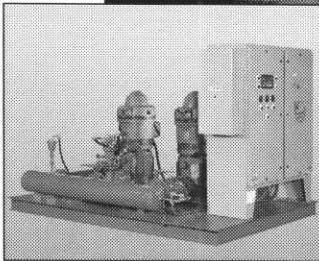


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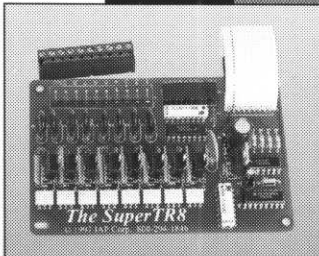
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# Reels on Wheels

## *An Inexpensive Way to Optimize Workspace In Old and New Maintenance Facilities*

By **BOB VAVREK**

*USGA Agonomist*

A common denominator among the more highly regarded golf courses across the country, regardless of the operating budget, is a spotless, efficient maintenance facility. A safe, well-organized workplace and clean, properly adjusted equipment are often the prerequisite to superior playing conditions on the course.

A neat and organized maintenance facility also can have a subtle but significant influence on even the part-time, seasonal employees. Keeping the shop clean encourages the crew to keep the course clean. After all, why would a part-timer running the string trimmer even consider picking up twigs, cigarette butts or a scrap of paper when the center of maintenance operations resembles a junkyard? This Turf Tip describes a simple and inexpensive way to keep the shop clean and maximize workspace.

Pat Shaw, a Wisconsin superintendent located at The Bog, noticed that the mechanic's large, heavy tool storage box was conveniently mounted on casters. The ability to easily move an unwieldy toolbox maximized the mechanic's limited workspace and improved productivity. Why not take a good idea one step further and install casters beneath workbenches, storage bins, racks of shelving, tables and other objects?

This concept of rolling storage was further modified and improved by his brother and fellow superintendent, Charlie Shaw, at Naga-Waukee Golf Course during the construction of a new maintenance facility. One of the more unique uses for casters is on the large wooden racks used to store extra sets of mowing and verticut reels. They're also used on several other large sets of multiple-shelf racks that store walk-behind rotary mowers, Flymos and other relatively small maintenance equipment. Again, the combination of rollers and multiple shelves on these storage racks maximizes the storage space in the shop and eases the difficult task of keeping the workspace clean and organized.

Both superintendents experimented with the use of casters that can be locked in place with a lever-type of friction brake, but on a rough, relatively level surface, a brake was not necessary. A heavy rack of equipment on casters

has little potential to roll around without a strong push due to a substantial amount of weight over the wheels and a fairly wide wheelbase that tends to compensate for an uneven surface. Brakes, however, would be a good option on a storage rack placed on a smooth-graded floor, for example, where the floor is graded towards a central drain grate or a collection sump.

The advantages of using casters under storage racks can be realized at the most modern maintenance facility as well as many smaller golf courses that, unfortunately, still operate out of a maintenance "barn." Storage space is always at a premium in the maintenance facility.

Superintendents are employing more push-behind rotary mowers and other small, highly maneuverable grooming units to maintain steep bunker banks, steep green banks and other severe architectural features that are commonplace in many contemporary course designs. Steep bunker and green banks are challenging features that are visually appealing, but they are difficult or impossible to maintain with standard triplex or rotary trim mowers. Multi-shelf racks are ideal for stacking and storing small mowers that could otherwise occupy a considerable amount of valuable floor space.

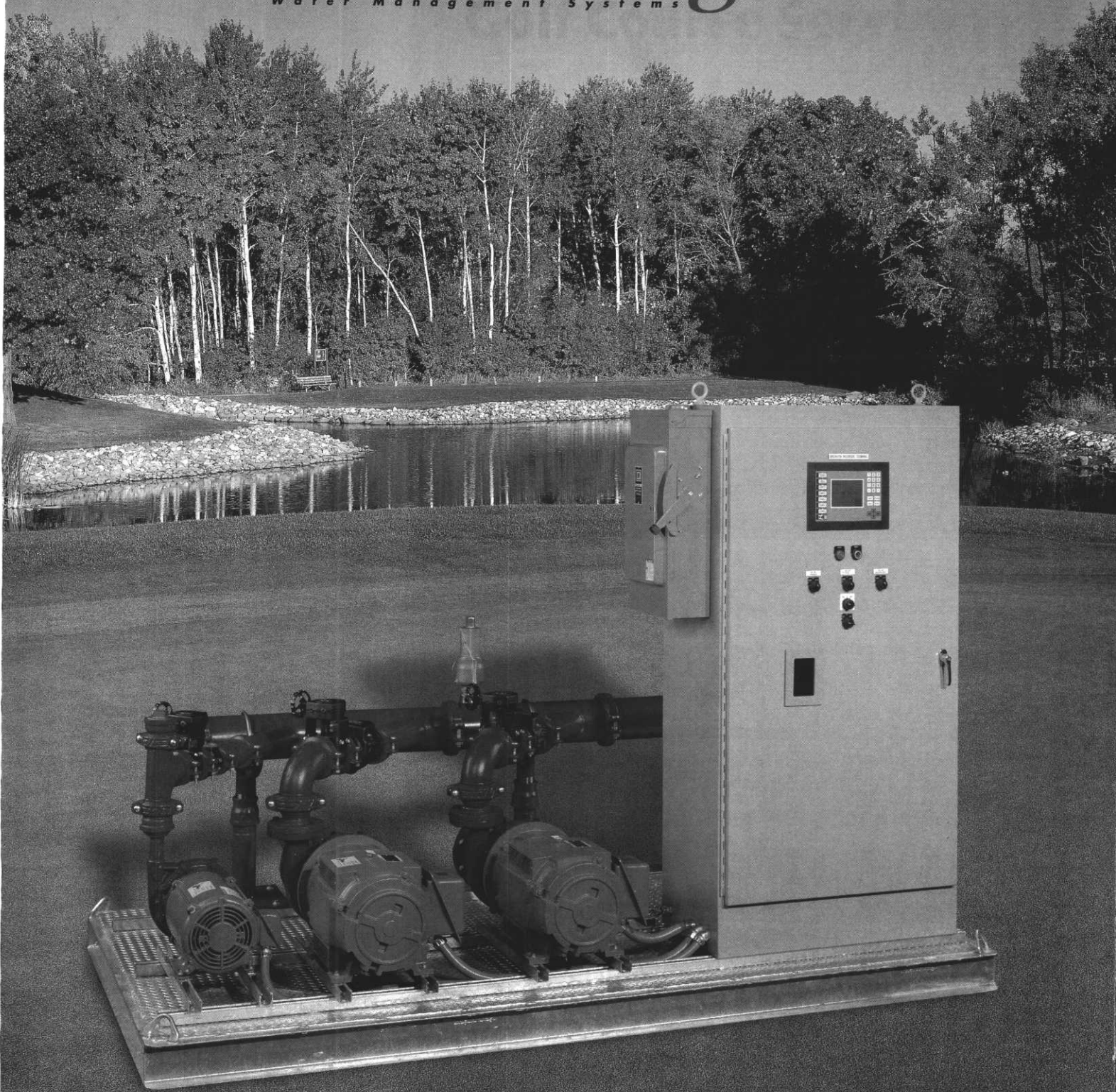
Golfers expect and demand nothing but the highest quality playing conditions on greens, regardless of the operating budget. Consequently, more and more intensive maintenance operations such as light, frequent topdressing, grooming and vertical mowing are becoming standard operating procedures on nearly all courses. These techniques can be performed much more efficiently when extra sets of sharpened reels are readily available to the mechanic to use at a moment's notice. Rolling racks of reels make this possible and practical.

---

*(Editor's Note: Bob Vavrek is an agronomist who rolls through the western portion of the North Central Region: Michigan through Montana. This article was reprinted with permission from the USGA Green Section.)*

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# Canada Geese

*Environmental Report from the Audubon Cooperative Sanctuary System*

The long V-shaped flight and distinctive honking of Canada geese have long been synonymous with the coming of spring and fall. Canada geese are well recognized throughout the country and are becoming semi-domesticated in urban parks and golf courses with lakes, ponds or wetlands. Here they find plenty of water, food and nesting sites that are relatively safe from predators.

Canada geese are grazing birds that feed on both wild and cultivated plants. They eat the rhizomes, roots, shoots, stems, blades and seeds of grass and sedges, grain, bulbs and berries. They also eat insects and aquatic invertebrates. Geese often spend the winter in agricultural areas where they feed on post-harvested grain and foliage.

Geese nest in a wide variety of habitats, but prefer sites with an open view: open fields near water, on islands, rocky cliffs, even in large tree cavities or artificial nest structures such as old tires. On the golf course, manicured water features provide a good view for nesting geese, while grass is plentiful forage. Geese usually mate for the first time in their second or third year, and pairs remain together as long as both are alive and healthy. They show strong nest site fidelity and often return to the same spot year after year if they are successful in raising young. Geese raise an average of 4-7 goslings each year.

Because of their size, intelligence and wariness, geese are less subject to predation than most other waterfowl. Hawks and owls prey on immatures and some adults, and snapping turtles, snakes and land-based predators take goslings which stray from parental protection. Parasites, diseases and accidents also take their toll. The life span of Canada geese is potentially 15-20 years, though on average, geese live about seven to nine years.

Around the turn of the century, populations of Canada Geese were drastically reduced by unrestricted market hunting on wintering grounds and migration routes. However, over the last 40 years, numbers have rebounded due to wildlife management, law enforcement and farming practices. Today, geese are protected by law, and it is illegal to destroy nests, eggs, young or adults without special state permission.

In recent years, wildlife biologists have identified a change in Canada goose populations and migration patterns. Many geese are no longer migrating great distances, but are forming "resident" populations that remain within a limited geographic area. Of concern are the dwindling numbers of Canada geese that breed in the arctic and subarctic and winter throughout the United States. Why these changes are taking place is not well understood and more research needs to be done. Loss of habitat, agricul-

tural practices and altered natural environments may all be linked to changing population dynamics of Canada geese.


## Controlling Canada Geese

Canada geese are perceived by many golfers and superintendents to be a nuisance on the golf course. Their feces can leave a substantial mess which must be cleaned regularly and they are not easily deterred from going about their business. Many courses encourage geese when they first arrive, only to find that after several years of nesting success, they can no longer tolerate the large flock that has somehow made the course home.

Without realizing it, many courses provide ideal geese habitat. Open water, an extensive food supply and lots of open space is precisely what geese are looking for.

There are no easy solutions to geese problems on the golf course. If you are experiencing difficulties, follow these guidelines to assess your situation and determine the best solution.

*(Continued on Page 11)*



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