Environmental Committee Update

By Kevin Clunis, Stillwater Country Club

As reported in an earlier edition of *Hole Notes*, the Environmental Committee was formed to help our organization better understand the environmental considerations for golf courses.

Presently we are putting the final touches on a compliance guideline to governmental regulations for golf courses. The committee, made up of several golf course superintendents, university personnel and associate members, focused on five areas of concern. The areas we researched were Aboveground Storage Tanks, Underground Storage Tanks, Pesticide Laws, Pesticide Spills and Hazardous Wastes.

When you receive your copy of this guideline, please take time to look through it. Included in each of the chapters are phone numbers of the various state agencies along with MGCSA Superintendents. If you have questions, do call the people listed.

There is so much information in this guideline that it is difficult to summarize. But here are a few points to take note of:

- You must keep pesticide records for five years.
- A new Restricted Use Pesticide list is included.
- Storage of pesticides away from seed is discussed.
- You must store pesticides in their original container.
- When filling your spray tank, you **must** have a backflow preventer in line.
- The Department of Agriculture will be running inspections of golf courses this year.
- You must report spills of all pesticides on non-target areas, no matter the size.
- Eligibility for 90% reimbursement on reported spills is reviewed.
- On USTs installed before 1988, you must have corrosion protection and spill/overflow prevention installed by 1998.
- On all USTs installed before 1974, you **must** have leak detection now; on tanks installed between 1975-1979, you have until 1992 to install leak detection; on tanks installed between 1980-1988,

you have until 1993 to install leak de-

- You **must** register all UST and Aboveground Storage Tanks (AST) with the State of Minnesota.
- Only requested tanks are eligible for the Petro Fund.
- Hazardous wastes will soon be collected by the state of Minnesota under a new program.

This guideline is for superintendents by superintendents. This is a professional document to help you and your club achieve compliance with environmental regulation. We will be revising chapters and adding new ones as time goes on.

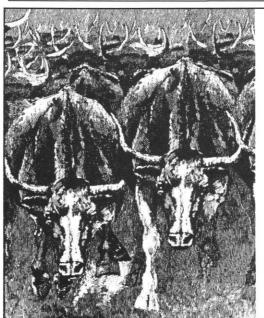
Another matter of concern to golf courses is a proposed ban on mercury fungicides. The House of Representatives introduced a bill (House File 160) that would ban the use of mercury fungicides on golf courses by January 1, 1992. Dr. Ward Stienstra and myself testified to the House Committee on Environmental and Natural Resources in behalf of the MGCSA in opposition to the ban. The testimony went well, but the committee passed the bill anyway. As of this writing, the bill is in the Appropriations Committee seeking funds. Our best chance is that this bill will die in committee. It also doesn't have support of our governor, so he could veto it unless it gets stuck onto some conglomeration of a bill package.

I will keep you informed as more information comes along. But in the meantime, some alternative snow mold prevention measures should be considered. Even if we survive this episode of a proposed ban on mercury, the future of the product is, at best, clouded.

STOLEN

Three (3) Mower decks & Three (3) Verticutters for a Jacobsen Greens Mower were stolen from Sleepy Eye Golf Course over the weekend of March 23-24.

Any information or questions, please call Dave Rubey, Sleepy Eye Golf Course at (507) 794-7802.



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Troll Receives Green Section Award

Dr. Joseph Troll, a renowned educator in the turfgrass industry, is the 1991 recipient of the Green Section Award of the United States Golf Association.

The award has been presented by the USGA annually since 1961 in recognition of distinguished service to golf through work with turfgrass. Dr. Troll received the award in February at the Golf Course Superintendents Association of America Conference and Show in Las Vegas, Nev.

During his tenure at the University of Massachusetts, an estimated 1,100 students were graduated from the program he directed, one of the largest number of graduates by any university in this country. A large majority became golf course superintendents.

Dr. Troll also helped establish the Turf Research Center in South Deerfield. Mass., which is active in all aspects of research and testing new grass varieties.

Although he retired from the University of Massachusetts in 1988, he remains active in turfgrass studies. He is the general chairman of the Massachusetts Turf Conference, one of the largest assemblies of golf course superintendents

and turfgrass personnel in the country, and he has assisted the Northeastern Region of the USGA Green Section in its Turf Advisory Service visits.

In 1983 he was the recipient of the Distinguished Service Award from the Golf Course Superintendents Association of America.

As one nomination said: "The turfgrass management industry and the quality of our golf courses have made tremendous improvements within the last three decades. Unquestionably, most of this has occurred because of better educated golf course superintendents...Dr. Troll loves the game of golf and has worked hard to develop our industry."

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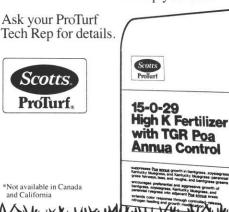


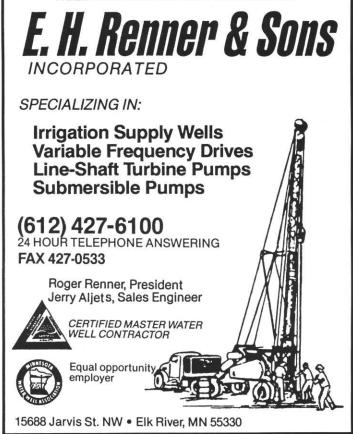
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1991 MGCSA Monthly Meeting Sites

Date	Location	Sponsor
April 22	Owatonna CC (lunch)	North Star Turf
May 13	River Falls (lunch)	Cushman Motor Co. Turf Supply (speaker)
June 3	Pebble Creek (lunch)	MTI - Neary Mfg.
July 8	Izaty's (lunch)	Lesco - Deep Tine Aerifying, Keith Faber, Five Star Deep Aerifying Co.
Aug. 19	New Richmond, Wis. MGCSA Championship (dinner)	Polfus Implement
Sept. 16	Golden Valley/Oak Ridge Research Tournament (Dinner at Oak Ridge)	
Oct. 7	Hastings (lunch)	R&W Golf Cars
November (first wk.)	Weather permitting, golf at Mankato	
November 20-21-22	Annual Conference Northland Inn	

ATTENTION SUPERINTENDENTS

Any superintendent who wishes to host a **1992** meeting and any associate who wishes to be a sponsor should contact BOOTS FULLER at Mankato GC. The only date spoken for thus far is the April 1992 meeting at St. Peter. Available dates are May through October, 1992.

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THE EXTENSION LINE

Plant and Site Considerations for Choosing Trees, Shrubs

By Bob Mugaas, Minnesota Extension Service



PART II Site Considerations*

The conditions of the planting site are as important as choosing the proper plant. Soil type and drainage, available water and sunlight, exposure to drying winds and other factors must be considered. Attempting to match the requirements of the plant to the site increases the survivability, performance, and longevity of the plant selected.

The first step in assessing the condition of the planting site is to examine the soil. Is it sandy and well drained? Is it moist with some organic material? Is it heavy clay and, therefore, wet and perhaps compacted? Construction practices such as cutting and filling, installation of underground utilities, and backfilling against foundations can create great diversity in soil structure. This variability can change drastically with depth and between planting locations on the same property.

Because plant roots require both moisture and oxygen for growth, soil drainage should be checked before planting. A poorly drained soil, high in moisture, but low in oxygen, prevents both proper root development and growth of beneficial soil micro-organisms that are responsible for decomposing organic matter and releasing plant nutrients.

To test for soil drainage, dig a hole 18 inches deep, fill it with water and let it stand overnight. If the water has not drained by morning, there is a drainage problem. (Do not test the drainage in this manner after heavy rainfall or before the ground has thawed in the spring.)

Soil pH is a measure of the acidity or alkalinity of a soill. A pH below 7 (neutral) would indicate an acid soil, and a pH above 7 indicates an alkaline soil. Many plants have an optimal range of pH; some are acid loving, and some may do best when the pH is near 7. Most trees thrive on a pH between 6.0 and 7.0. Soil

pH is raised by calcium carbonate or lime. Plant species that will tolerate a high pH should be considered for areas with buried concrete, near foundations, or sidewalks, etc. Plant species considered tolerant of high pH include: green ash, white ash, amur corktree, ginkgo, hackberry, honeylocust, and Russian olive. Evergreens perform best in slightly acidic conditions. There are some exceptions: arborvitae, ponderosa pine, Coloraro blue spruce, Black Hills spruce, muhgo pine, and junipers can tolerate a wider pH range.

Water

The correct amount of water for plants is essential. Select plants that are tolerant of excess water for low areas where water may be standing or very close to the surface, or where a heavy clay soil exists. Standing water or a high table means low oxygen content in the soil. Therefore, trees and shrubs that can tolerate excessive moisture are often better suited to these poor sites. Trees that are able to tolerate moisture are: green ash, river birch, hackberry, swamp white oak, red maple, and Russian Olive. Drough tolerant trees can withstand extended periods with little water and are best suited for sandy soils. They include: green ash, amur corktree, ginkgo, hackberry, Kentucky coffeetree, and Russian olive. Drough tolerant shrubs include amur maple, barberry, caragana, honeysuckle, buffaloberry, spirea, and lilac.

Sunlight

Although some plants can tolerate low light conditions, most require full sun to maintain their vigor and attain their optimum performance. Deciduous trees considered to be more shade tolerant include: green ash, white ash, river birch, ironwood, Kentucky coffeetree, American linden, Norway maple, hackberry, red maple, and sugar maple. Evergreen plant materials tolerant of shade include Canada Hemlock and yews. Evergreens

tolerating a filtered shade situation include arborvitae, Balsam fir and Douglas fir.

Location

The location of the planting site in relation to other trees and objects such as buildings, fences, etc. will have a considerable influence on temperature and moisture conditions. Prevailing westerly winds will have a drying effect on nonprotected sites. The south side of a building will be much warmer and drier than the north side. The warming effect of the sun on a cold winter day can cause injury to bark and may cause the tree trunk to split. For evergreens, this warming can cause water loss and growth activity resulting in needle damage when the temperature is again lowered. Plant hardiness can be greatly affected by the amount of protection provided by individual microclimates.

*Adapted from Minnesota Extension Service publication (AG-FO-3825) "Planting and Transplanting Trees and Shrubs" by Bert T. Swanson, James B. Calkins, Peter-Jon Rudquist and Steven Shimek.

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