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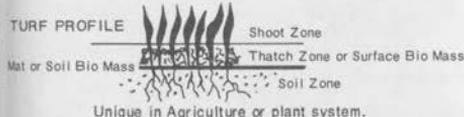
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More on Thatch

This past summer was a good time to observe what thatch can do to your turf programs. If you suffered because of excessive thatch accumulation, you now know what it is all about. Thatch is defined as "an intermingled organic layer of dead and living shoots, stems, and roots that develops between the zone of green vegetation and the soil surface." If thatch becomes mixed with soil it is often called, *Mat*. Excessive amounts of thatch and *Mat* can cause several problems: Localized dry spots, increased disease and insect activity, footprinting, scalping and exposure to environmental extremes and stresses.

inactivity controlled by pH, and inactivity of the earthworms. Any stimulation of growth in excess of normal maintenance should be avoided, such as fertilizing in excess, over watering, and improper mowing practices.

Quite often we can control thatch with frequent topdressing and vertical mowing. One thing for sure, some of the new chemicals that claim to decompose thatch biologically have little effect on thatch. The stimulation of the microorganisms is negligible. Coring and slicing also help.



New Chemical on the Horizon

Rhodia, is in the process of satisfying the "Experimental Research" requirements set forth by the Federal Government for a new fungicide.

After all requirements are met, they will be able to present the new chemical RP 26019 as a broad spectrum turf fungicide. It shows great promise as a control for Large Brown Patch, Dollar Spot, Helminthosporium Leaf Spot and Snow Mold. It also appears to control the resistant strains that are becoming more common.

When plants grow above soil in the thatch, you are in trouble. When thatch is a growing medium, turf becomes vulnerable to stress.

How does it occur. When production of living portions of turf exceeds the decomposition of the dead plant parts you have an imbalance and thatch is the result. Decomposition is slowed down by chemicals, microorganism

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How to make your board see the value of new turf equipment.



Convincing your Board of Directors that new turf equipment is a necessary and sound investment can be one of your most difficult tasks. They don't always see the benefits behind such a purchase.

And as good businessmen, they won't commit the money until they're sold on the expenditure. So when it comes time to face them, here are some of the things you should point out.

Point #1: The Duffer Demands More.

Today's golfer is more sophisticated than ever before. He has seen, and many times played, some of the finest courses in the world. He recognizes the value of a good course. And if yours is sub-par, he'll go elsewhere.

With this more sophisticated golfer comes the need for more sophisticated golf course maintenance. Heavy player traffic has increased the work required to keep the turf in top condition. So jobs that were once optional are now mandatory. Where spiking a green used to be sufficient, today it also needs deep aeration.

All this dictates the use of specialized equipment that wasn't available ten or even five years ago. Equipment that will enable you to build and maintain a top flight course, and help avoid special turf problems that could prove extremely costly.



Point #2: Machines Do More.

In the past decade, the price of labor has tripled. The same number of men must do more work in less time to give you the same value for each labor dollar invested. Mechanized equipment allows you to trim hundreds of unnecessary man-hours. One man can now cut more sod in an hour than six men used to cut in six hours. Or that same man can aerate 18 greens in a few hours instead of a few days.

New engineering concepts coupled with precision machinery means he'll do a consistently good job. You get better results and fewer occasions when a job must be redone.

And your turf equipment is depreciable; something your labor is not. You get an accounting break over a period of years. At the end, it's like owning a piece of free machinery. One that will continue to save you money long after you've paid for it. Which brings us to the third point.

Point #3: Longevity Makes Them Worth More.



Equipment life should be a prime consideration when you select a manufacturer. The longer a machine works, the more it does,

and the less maintenance it requires, the better your investment. And here's where we'd like to put in a little plug for Cushman and Ryan turf equipment.

Both lines of machinery are built to last... and last. It's not unusual to see a piece of Cushman or Ryan equipment still doing its daily chores after ten or fifteen years of use. We believe the idea of "planned obsolescence" should be obsolete.

But performance is just as important as longevity. A Cushman Turf-Truckster and its accessories give you the capabilities to transport, spray, spike, dump, aerate, and top dress... all from one power source.

If "A Day With the Board" is in your future, we'd like the opportunity to tell you more about the full line of Cushman and Ryan Turf equipment. Write to us and we'll send you our catalogs, full of detailed product information. Information that may help you open a few eyes to the value of new turf equipment.



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At our Meetings ...Pictorially



Jim Latham, Milwaukee Sewerage Commission, making a point about "Getting Your Head on Straight" at our July 19 meeting at Barton Hills Country Club.



Mr. Richard Tillotson (center) discussing the Mud Cat process with interested members. Dick spoke at our August 30 meeting at Meadowbrook Country Club.



President George Prieskorn (left) with guest speaker Hugh McKay, Golf Course Specialist from Toro Irrigation.

Beware of the Expert

By Dr. Bill Knoop, Iowa State University

Being a golf course superintendent has to be an easy job. What other profession has available to it so many "experts" that are so willing to give advice at such a low cost. Sometimes you even get advice without asking. Who are these "experts"? They come from all over, they are your club members, your employer, your employees, your fellow golf course superintendents, the salesmen, the technical representatives, turfgrass consultants and, oh yes, guys like me from the university. We are all "experts".

You've got a problem, we all know the answer or do we? You, as a golf course superintendent are faced with problems of some type every day. Some are considered big problems, but hopefully most are not so big. No matter the size of the problem you will need to make a decision regarding the problem and you want to make the right decision. No one can tell you with 100% certainty what the right decision may be.

A look at the problem solving or decision making process may help increase your odds of making the right decision. The first step is to accurately identify the problem. For example, last winter we lost a lot of grass on greens to what we are calling winter kill. We have a problem that we must solve so it won't happen again. We must identify the cause of the problem. It could be a lack of fall moisture. It could be a shallow root system. It could be a thatch layer that prevents water from getting to the roots. It could be a heavy soil that has restricted root growth or it could be a combination of the above or it even could have been caused by something else. The point is that you must use your basic turf knowledge

and experience to identify the real cause of the problem.

The next step is to decide how to solve the problem. You could decide to do nothing and hope it doesn't happen again. You might decide the best solution is to reconstruct the green or you might select some other method to repair the damage. In selecting the best solution to the problem, you must also consider your budget situation, your available labor, the effect your choice will have on play, etc.

In this whole process the word *you* has been used often. This is because it is your job to make decisions. No one else can step into your shoes and make your decisions. Many "experts" will try if you let them, but most of us would rather live with our own decisions than have to live with decisions that have been made for us.

"Experts" are not all bad. Use them to help you explore the possible causes and solutions to problems, but in the end you're "the man" and you should make the decisions.

Several years ago, Dr. Dick Skogley spoke at a New Hampshire Turf Seminar and suggested that when we are faced by an "expert" we should remember the origin of the word. He said the word should be divided into 2 parts, X and spert. The first part, X, means a has been and the second part, spert, means a drip under pressure. Think about it.

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The Latest on Fertility, Fungicide and Insecticide Programs for Fairways

Dizainon and Proxol 80 appear to have controlled grubs best in 1977. Proper fertility levels were responsible for most success stories in controlling Anthracnose, Ateneous beetles and dollar spot with pesticides.

MSU proposes that the following program be followed:

MONTH	JUNE	JULY	AUGUST	SEPT.
DAY	1st & 15th	15th & 25th	7th	7th
FUNGICIDE	N.S. S.	N.S. N.S.	S.	N.S.

*N.S. - Non Systemic (contact)
S. - Systemic

Each application will cost about \$700.00 for forty acres of fairway turf. Six applications will cost \$4,200.00. Most years will also require an early spray application for Leaf Spot so add another \$700.00.

The fertility program for fairways should include ½ pound of Nitrogen per 1000 sq. ft. in June, another ½ pound in July, another ½ pound in August and still another ½ pound in September. A final one pound of N should be applied in November for a grand total of three pounds per season. Other nutrients should be applied as soil tests indicate and dictate. A proper fertilizer program will compliment your fungicide program.

It is felt that a good fertility and fungicide program will keep your turf healthy enough to keep your fairways in the same condition as tees and greens. Fairways can be kept as short as ½ inch. Many Superintendents are doing this with great success. The secret is: TEST YOUR SOIL FIRST!

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best man. A night of dancing and visiting with old friends highlighted the evening. Our Congratulations to the Wolfroms from the entire membership. We hope they have many more happy years together with God's blessing.

Interruptions: There is an art to avoiding them

You walk into your shop in the morning. The phone is ringing. You pick it up and spend the next fifteen minutes talking.

Immediately after hanging up the phone, someone is in front of your desk waiting to talk to you about a problem. You spend twenty minutes discussing ways to alleviate that problem.

Then you turn to some paperwork that must be done before you head to the course. On the way out of the door you see someone who stops and talks with you for thirty minutes.

All the while your work is waiting for you. As a manager you are being given a heavy dose of the interruptions. Interruptions often wreak havoc with a manager's effectiveness.

Interruptions are not always obvious - some are deceptive. They masquerade as legitimate concerns and we hesitate to label them time

wasters. This presumption of legitimacy is attached to telephone calls as well as visitors.

You may say that callers and visitors wouldn't stop by without a good reason. But sometimes a caller or visitor simply wants to socialize or to procrastinate.

There are several ways to get an upperhand on the interruption syndrome. One is to manage your use of the telephone. Another is to gain control over shop conversations. A third is to plan for uninterrupted think time.

Good management dictates that incoming telephone calls be prevented from destroying a managers concentration. Many callers ask for the superintendent because they identify his name with that of the course. The wise manager introduces his staff to his clients, speaks highly of their competencies and suggests, "Jim is

Continued on Page 16

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Coping with a Water Shortage

By Dr. James R. Watson
Vice President, Agronomist, The Toro Company

Maintenance practices on golf courses and other large turf areas may need to be altered during periods of water shortages and, in some circumstances, drastic changes may be necessary. If the facility depends for irrigation on municipal water and that supply is terminated or restricted, or if water available from other sources is severely limited, steps should be taken to:

Reduce the need for moisture.

Make certain all available moisture, including dew and rainfall, is utilized with maximum benefit and with maximum efficiency.

Improve moisture retention of the soil.

Find new sources of water, such as treated sewage effluent, brackish or other marginal quality water.

Here is an eight-point program that will help to conserve water and reduce the need for irrigation, while the search is made for alternate sources.

1. *Establish watering priorities.* Give the highest priority to the most intensively managed areas; for example, on a golf course, the greens, the most valuable part of the course, and where the most critical play takes place. The greens also are the most difficult to revive following periods of extreme moisture stress, especially if the stress causes dormancy or turf loss. On a golf course, give lesser importance, in descending order, to tees, fairways, clubhouse grounds, rough. If there are specimen plantings or trees or plants that have special significance, (e.g. those imported at high cost or a gift) give them the same special attention as the greens.

2. *Alter irrigation practices.* (This is much easier to do if the course has

an automatic irrigation system.) Use only enough water to sustain life, not to stimulate growth. Irrigate when there is the best combination of little wind, low temperature and high humidity. In any 24-hour period, that combination most often exists just before dawn.

When there is dew on the ground, use a surfactant ("wetting agent"), or drag a hose across the grass to break the surface tension of the dew and send as much moisture as possible to the root systems. When watering trees and shrubs, use probes so the water will penetrate deeply.

3. *Reduce, or avoid where possible, other causes of stress.* Be alert to salt build-up, especially in arid or semi-arid regions. Make certain there is adequate drainage. On golf courses, alter locations of tees and flags, and restrict golf cart use to paths and trails, keeping them off turf areas.

m4. *Alter mowing and cultivation practices.* Initially, test the soil to ensure adequate fertility, especially for phosphorus, which encourages root system growth - deeper roots, thus expanding the area from which the turfgrasses can draw nutrients and moisture. Use calcium if there is a deficiency, to bring pH to a range of 6.5 - 7.2. Maintain a constant and uniform supply of nitrogen at a low to medium level to avoid unnecessary leaf growth. Consider slow-release materials; otherwise apply soluble materials at low rates frequently, rather than at higher rates infrequently. The latter will stimulate excessive leaf growth.

Raise the height of cut for all areas. Although this enlarges the

Continued on Page 17

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NAME OF INTERESTED PERSON _____ DATE _____

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Interruptions: Cont.
our expert on pesticide application. I depend highly on him to keep our members informed."

Consider the telephone a message machine and get off the line promptly. Avoid openings that invite long, drawn-out conversations. Instead of saying, "Hi, Fred, How was the golf game last Saturday?", say, "Hi, Fred. I need a couple of quick answers if you have a minute."

Visitors can cause problems for managers, too. It is too difficult to determine in advance the importance of a visit, so managing visits involves many alternatives. Consider some of these options:

a. Have fixed reception hours. This allows callers to know when you are available. It also gives your staff a fixed period of time when they can see you if they have problems.

b. Face your desk away from the door so that you are not interrupted by passersby.

c. Meet the visitors outside your office.

d. Confer standing up.

e. At the outset, tell the visitor you only have a certain number of minutes to give him. . . then adhere to that figure.

f. Give the visitor your undivided attention. Do not allow interruptions.

g. Hold occasional luncheon meetings to remove the pressure for social visits.

Uninterrupted think time allows the superintendent the time he needs for thoughtful planning. Some practices that may work for you include:

a. Instituting a quiet hour at the start of the day.

b. Coming to the shop early.

c. Having a hideway known only to one staff member.

Although interruption control and scheduled think time can greatly improve a manager's effectiveness, there is another tool available. . . delegation of duties.



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Coping with a Water Shortage Cont.
surface area through which moisture is transpired, and under normal moisture conditions may result in stepped-up activity for disease-producing organisms, the benefits gained - mainly root extension - are most important. Raising the height of cut on a golf course green as little as 1/32 of an inch can have a significant effect on the ability of the green to tolerate stress from lack of moisture.

Mow less frequently. The combination of reduced irrigation and fertilization, higher height of cut and less frequent mowing can induce "hardening" of the turfgrasses.

Increase frequency of spiking or cultivate - if temperatures are not extreme - to trap moisture and hold it longer in the vicinity of the root system.

5. *Expand use of mulch.* Apply heavy layers of mulch - any organic debris that's available - around the

base of trees, shrubs and flower beds, to hold in moisture.

6. *Erect wind barriers, especially where there are large expanses of open spaces.* Less than 3 percent of water absorbed by a turfgrass plant is utilized by the plant. Most of it - the other 97 percent is lost into the atmosphere by transpiration. And the rate of transpiration will rise with an increase in wind speed, radiation or temperature and by reduction in humidity. (Some of the same practices used to trap snow in the northern regions can be applied to reduce wind velocity.)

7. *Aggressively seek additional sources of water.* Among the several possibilities are wells and ponds, collections of marginal water and - the most abundant and most often wasted water supply - treated sewage effluent. There are many golf courses throughout the country successfully using recycled

Continued on Next Page

Coping with a Water Shortage Cont.
wastewater for irrigation.

8. *Experiment with anti-transpirants.* Although techniques for inhibiting transpiration have had mixed results, some reduction in moisture loss through transpiration might be accomplished with the use of chemicals, emulsions or films.

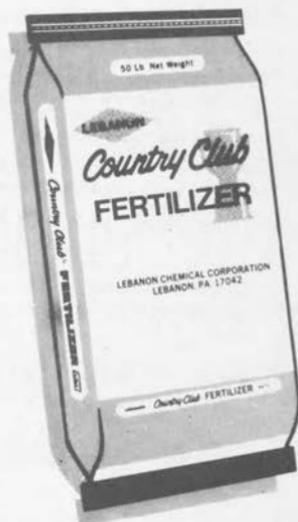
Water, as it does for all living things, performs many vital functions necessary to the life of turfgrass. It is the transport medium that carries nutrients to the plant. It plays an essential role in the photosynthetic process, metabolic process, in hydrolysis and in thatch decomposition. Seeds cannot germinate without it.

Denied water indefinitely turfgrass, trees, - all vegetation - ultimately will die. But under sound management practices geared to water conservation, the life of plants on a golf course and other large turf areas can be extended, perhaps even sustained, until it rains,

the water shortage subsides or water is delivered from alternate sources.

If turf must be replaced and it appears likely water will be in short supply indefinitely, replace with more drought-resistant turfgrasses. James Beard, in his book *Turfgrass Science and Culture*, gives the relative drought resistance of 22 turfgrasses. He rates Buffalograss, Bermudagrass, Zoysiagrass and Bahiagrass as "excellent" and created wheatgrass, hard fescue, sheep fescue, tall fescue and red fescue as "good." Less drought resistant - in the poor-to-medium range - are the bluegrasses, ryegrasses and bentgrasses.

I know that you believe you understand what you think I said, but, I am not sure you realize that what you heard is not what I meant.



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CENTURY RAIN-AID IN EXPANSION MOVE

You heard it before. A year ago, Century Rain-Aid's plans for moving into a new building were blocked by the former occupants.

To quote the old song - "It's better the second time around." So, here we go again. Century Rain-Aid's new location in Madison Heights now gives the company a metropolitan-east address to balance its west side office on Telegraph Road. This provides easier access to customers in the Oakland County and east of Woodward districts, and greatly broadens Century Rain-Aid's local service capabilities in Michigan.

Just 2 miles east of the I-75 - 14 Mile Road exit, Century Rain-Aid's new building is at 31691 Dequindre, Madison Heights 48071. As of December 1, 1977, the new phone number will be (313) 588-2990. The Madison Heights facility will replace the present warehouse operation in Berkley as well as serving as the main corporate office. The 10,000 sq. ft. structure is a modern 2-story building with complete display and warehouse accommodations on over an acre of land. A 40-car parking lot provides easy ingress and egress for customers.

Says Ernie Hodas, Century Rain-Aid's president - "An innovation we think our customers will specially like is the unique individualized contractor and sales area concept. Designed to speed up service and save time, customers will be channeled into their own specialized departments through separate entrances. Stocks and floor displays, as well as counter sales personnel, will be keyed to the individual needs of each group. We think this customized service will prove popular with everyone."

Continued on Next Page

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Century Rain-Aid will retain its Southfield location at 22159 Telegraph Road, including all present facilities at that address.

Century Rain-Aid is a long-established firm in the underground sprinkler and irrigation field, serving as franchised distributors for such well-known names as Rain-Bird, Safe-T-Lawn, Moody, Nelson, Imperial, and others. It operates a stocking warehouse in Elk Grove Village, Illinois, to serve that geographic area. It is also a distributor for agricultural irrigation equipment and supplies, with 4 sales and service offices covering the Michigan, Illinois, and northern Indiana area.

TED MULCAHEY JOINS WILKIE TURF EQUIPMENT COMPANY

To keep pace with rising Irrigation and Turf volume business Wilkie Turf Equipment Company is pleased to announce that Edward F. Mulcahey has joined the firm July 18, 1977 as Marketing Manager, Turf and Irrigation Products.

Prior to joining Wilkie Turf Equipment Company, "Ted" represented O M SCOTT in Northwest Ohio and Southeast Michigan from July, 1971 to July, 1976. From July, 1976 to July, 1977 he was Regional Manager (Central Region) for O M SCOTT. He is a graduate of the University of Rhode Island with a B S Degree in Agronomy.

Charles Kemp, who has been with Wilkie Turf Equipment Company since 1973, has been named Manager, Irrigation Department.

Kurt Kraly, who has represented Wilkie Turf Equipment Company in Turf Equipment sales has been promoted to Manager, Golf Course and Irrigation Contractor Sales.

Being smart is when you believe only half of what you hear, and brilliance is when you know what half.
Andy Porter

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Turf Topics

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WILLIAM SMITH, FORMER RED RUN GOLF CLUB SUPERINTENDENT, PASSES AWAY IN CALIFORNIA

William Smith, former superintendent at Red Run Golf Club, passed away October 20, 1977 at age 85.

Willie Smith, as we all knew him, was superintendent at Red Run for 44 years. Retired in 1962, Mr. Smith moved to San Diego, California.

A charter member of the National Golf Course Superintendents of America and the Michigan & Border Cities Golf Course Superintendents Association, Willie helped organize the Michigan & Border Cities Golf Course Superintendents Association in 1925, and served as Director, Secretary-Treasurer, President and Vice-President.

He has two sons, William of San Diego, California, and Peter of Royal Oak, Michigan.

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LARRY VETTER JOINS NORTHROP KING COMPANY

Northrup King Co., Minneapolis, Minnesota, recently announced the appointment of Larry G. Vetter as Manager, Professional Turf Products Division.

Vetter was most recently an Instructor in Turf and Golf Course Maintenance at Anoka Area Vocational Technical Institute in Anoka, Minnesota. He has over 15 years of experience in the turfgrass field including 11 years as Golf Course Superintendent and Superintendent of Grounds for Minikahda Club, Minneapolis; four years as Assistant Golf Course Superintendent for Park Land Country Club, Muscatine, Iowa and one year as the owner and operator of a commercial and home lawn maintenance company.

Vetter has a B.S. degree in horticulture and turfgrass management from Iowa State University where he received the Top Turfgrass Senior Award in 1965. He was assigned to Iowa State University's turfgrass research program during 1965. Vetter also earned a degree in business administration from State University of Iowa in 1962.

A member of the Golf Course Superintendents Association, Vetter served as Director of the Minnesota G.C.S.A. in 1970-71, Vice President in 1972 and President in 1973-74. He has also participated as a guest speaker for several G.C.S.A. conferences.

Northrup King's Professional Turf Products Division markets improved varieties of turfgrass seed for professional users.

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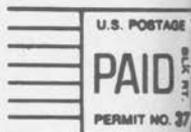
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