Tee to Green

July 1979 | Published monthly by the Metropolitan Golf Course Superintendents Association | Vol. IX, No. 6

MGCSA MEETING NOTICE:

Date:	Thursday, July 19 Superintendent's Championship-1st Round
Place:	Innis Arden Golf Club 120 Tomac Ave., Old Greenwich, Conn.
Host Superintendent:	Pat Lucas
Club Manager:	William Woods
Golf Professional:	William Mitchell
Greens Chairman:	Chester Rice
Club President:	Harold G. Rogers
Telephones:	(203) 637-3210 (Superintendent) (203) 637-3677 (Clubhouse) (203) 637-3679 (Golf Shop)
Golf:	12:45 Shotgun* Carts: $18 (cash) Caddies: $10/bg. (cash)
Lunch:	A la carte available in grill room from 11:45 on (cash)
Social Hour:	6 p.m. with hors d'oeuvres
Dinner:	7 p.m.—$15 (cash, inclusive)
Program:	Speaker: Martin Petrovic, Agronomy Dept. Cornell University

Directions: From the Connecticut Turnpike (I-95):Exit #5. Bear right (east) on the Post Road (U.S. #1). Go one block and turn right at light on to Sound Beach Ave. Proceed to bottom of hill and when park is on your right, make a left on Forest Ave. (stone church). Continue on Forest Ave. past Electrolux Plant, under R.R. crossing to club.

**Note: This tournament for Class A only, MGA Handicaps, make your own foursome. Three gross and three net prizes.*

COMING EVENTS:

July 9	Lawrence Labriola Memorial Tournament, Whippoorwill Club
July 9-15	1979 U.S. Women's Open, Brooklawn C.C. (for information call 203-334-5116)
July 19	MGCSA Monthly Meeting, Innis Arden
July 25	Univ./Mass. Annual Turf Field Day
August 16-19	Westchester Classic
August 20	Family Picnic—Woodway C.C.
August 22	Univ./Rhode Island Turfgrass Field Day
September 20	MGCSA Invitational, Ridgeway C.C.
September 25	CAGCS Field Day, Beardsley Park, Bridgeport
October 2-3	NJGCSA Field Day, Rutgers University Stadium, Piscataway
October 16	MGCSA Monthly Meeting, Salem G.C. (2nd round, Supt. Championship)
November 13-15	N.Y.S. Turfgrass Association Conference & Equipment Show, Syracuse
November	MGCSA Annual Meeting
February 17-22	GCSAA's Conference & Show, St. Louis, Missouri

MGCSA NEWS:

June 7th was a beautiful day in the country with Fred Scheyhing at the Mt. Kisco Country Club. A total of 47 golfers enjoyed the well groomed facilities. The tournament was run on the Callaway System and this is how the net scores looked:

Mike Lehman	First Place	72
Ed Binsse	Second Place	73
John McFadden		73
Dennis Flynn		73
Mark Millet		73

A total of 94 were on hand to hear our speaker for the evening, Ann Reilly, Executive Secretary of the New York State Turfgrass Association. Ann gave an excellent presentation on the use of flowering trees, shrubs, and annuals in the golf course landscape.

We were treated to a steak cookout fit for a king. Everyone at Mt. Kisco did a superb job in spite of the fact that only 50 individuals informed Fred that they were coming out of the 94 who attended.

Thank God that the rains of May and early June have finally subsided. Many courses experienced outbreaks of both leaf spot, red thread, and here at Innis Arden we had a disease which was identified as a form of Rhizoctonia. Courses with poor drainage experienced difficulty in accomplishing routine maintenance practices. It appears now that we have a great deal of turf entering the stressful summer in a weakened conditioned. The next few months will be touch and go.

Last month, we reported in this column the problems we were encountering with deliveries due mainly to the truckers strike compounded by the tugboat strike. It appears now that the entire delivery situation has deteriorated due to the fuel shortage. Enough said about ordering early?

Also, in connection with this fuel crunch, many of us may not be able to go away on that month's vacation this summer!

See you July 19th.

Pat Lucas

Tee to Green

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Publication deadline for Tee to Green is 21 days before the regular meeting.

SUCCESSFUL GARDENING FOR THE GOLF COURSE

by Stephen Puvogel
Assistant Superintendent, Winged Foot Golf Club

Our guest at the MGCSA meeting at Mount Kisco Country Club was Ann Riley. Ms. Riley's topic was Successful Gardening on the Golf Course. The use of color was encouraged to help accent all the green color provided by the turf.

In fall the planting of bulbs in conspicuous areas will help to highlight various backgrounds and entrances during the spring. The sequence of bloom can be extended with the use of members of the Ericaceae family, by utilyzing them for hedges, borders and specimen plantings. These plants offer the added advantage of having low maintenance requirements.

For summer color in sunny areas the use of marigolds, annual phlox, sweet alyssum and petunias were suggested. Yucca was recommended for its interesting flower and foliage while day lily's prominent features were its low maintenance and flower.

Impatiens planted with dusty miller, begonias, coleus, ageratum and hyrangea offer excellent color for those areas that are shaded.

Fall color comes in two forms, fruit and foliage. Beauty berry sometimes referred to as coral berry, and pyracantha are two plants that have colorful fruits. The foliage of the dogwoods and enonymous are particularly striking.

The viburnums give color by both fruits and foliage.

MGCSA June meeting at Mt. Kisco C.C. Left to right: Melvin Lucas, Vice President of the GCSAA, Bob Alonzi, President of the MGCSA, Ann Reilly, Executive Secretary of the NYSTA and Fred Scheyhing, host superintendent at Mt. Kisco.

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WANTED TO BUY:
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GETTING THE MOST OUT OF EMPLOYEES

Older employees handle tough assignments better in the morning, while younger workers perform better in the afternoon, per recent survey by Alfred Marks Bureau Ltd., U.K. Employment Agency. The study, involving over 1500 clerical staff in 100 firms, revealed widely different levels of energy in various age groups at different times of the day.

For example, employees in the *31 to 40 age range* have more energy than anyone else on getting up in the morning. Those *under 18* had the least. The *41 to 55 age group* shows its highest energy level on arriving at work. By mid-morning, when overall energy levels are at their highest, the under-18 are still the least active. It is not until mid-afternoon, when most age groups are beginning to fade, that the youngest group reaches its peak.

Credit: Small Business Report, June, 1979

WELFARE: Please contact any member of the Welfare Committee regarding any hospitalizations, etc. of members of the MGCSA: Dennis Flynn (914) 636-8700; Pat Lucas (203) 637-3210; Peter Rapoccio (203) 438-6720.

PROBLEM: **MAINTAINING TURF ON INTENSIVE USE AREAS.**

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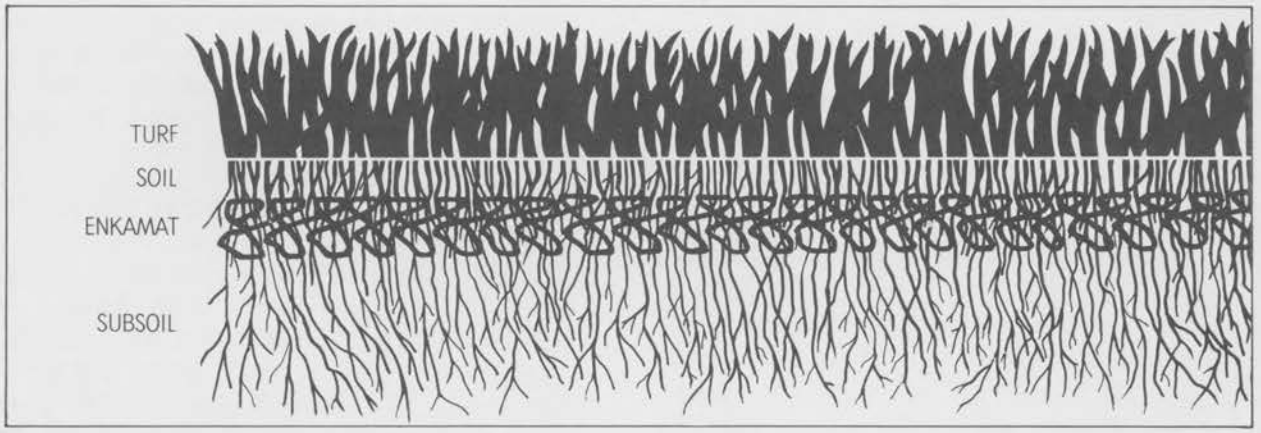

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TOM MASCARO MANAGER

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HYPERODES UPDATE

By Pat Vittum

Species Question

Several studies were conducted during the winter months to determine how many species of *Hyperodes* weevils are damaging turf. Weevils collected from Elmira (N.Y.) in August 1978 appeared to be very similar to weevils collected in Westchester and Fairfield counties, so a series of tests were designed to compare specimens from the two locations.

Several measurements were made (body length and beak length, for example) on specimens from both regions. Both appeared to be similar in size, shape, and color, and no statistically significant differences were observed.

A small but complex structure was removed from male weevils and nine portions of the structure were measured. Seven of the nine parts were highly significantly different in the different locations.

The hairs and scales on the prothorax ("shoulder") differed substantially from one location to the other. Weevils from Elmira had many more hairs and scales than did the weevils from the metropolitan area.

Most of the evidence indicates that the two weevils are in fact two different species. However, they are very closely related, and their life cycles and feeding habits are very similar. I hope to confirm the species situation later this year, based on the outcome of efforts to breed weevils from the two areas.

Development This Year

I have collected samples from white pine litter throughout the winter. Populations apparently peaked in December and declined gradually through the winter. The numbers have dropped sharply since the end of April, indicating the weevils are beginning to move toward the fairways. Recent samples (mid May) from fairways revealed eggs and a few very small larvae. This would appear to be slightly ahead of last year, but the spring of 1978 was unusually cool. The warmer temperatures this spring are allowing the weevil—and the eggs and larvae—to develop more quickly.

Samples collected from Bonnie Briar C.C., Waccabuc C.C., and Winged Foot G.C. on June 8 indicated the majority of the population was in the largest larval stage. Samples taken a week later indicated that most of the insects were pupae or young adults. There should be no more damage from the spring generation.

Based on the activity of the weevils in the past three summers, we can expect the new adults to begin laying eggs around the end of June. Ordinarily damage is not as severe as it is in the spring, because the population is not as dense in any given ares, but in some isolated areas, it can be considerably worse. Those of you who have had a history of trouble spots might consider treating those areas during the first week of July. (Use Dursban at 2 lb/A or Diaxinon at 4 lb/A and avoid treating on a hot, sunny day if possible to reduce chances of burning the grass.) This is NOT an official recommendation—we still do not have enough field data to fulfill EPA requirements.

The spring plots indicate that Dursban is still very effective against the spring generation of larvae. Another material, not yet available on the market, may have a longer lasting effect, and the spring treatment may be effective against the summer generation as well. We will know more about the residual activity of this material after we sample the plots in late July.

Note: I will not be living in Westchester County this summer, but I do plan to make sampling trips every two weeks throughout the summer. If you have any questions, please call Dr. Tashiro or me (315-787-2342 or 2355).

Something to think about. . .

Just as turning the logs will make a dull fire burn, so a change of studies will brighten a dull brain. *Longfellow*

RUTGERS TURFGRASS RESEARCH DAY

This synopsis of the Rutgers Turfgrass Research Day is presented by the students on the grounds crew of Winged Foot Golf Club.

Low Maintenance Turfs

With the present energy crunch, potential water shortages and increasing maintenance costs the use of low maintenance turfs may prove to be a great asset in helping to ease these problems.

The most favorable prospects presented to us at Adelphia were two Zoysia varieties Emerald and Meyer. No soil preparation was done prior to planting nor were any cultural practices employed during the growing season. These turf areas required only three mowings yearly and had invaded the blocks of the neighboring cool season grasses.

Among the cool season grasses showing the most promise were Kentucky 31 Tall Fescue and Pennlawn Red Fescue. Both fescues provide green color for a longer period of time and consequently required more maintenance than their warm season couterparts.

Stephen Puvogel, Texas A & M University

Evaluation of Ryegrasses

The recent development of improved turf type ryegrasses has made this species a valuable specialty turfgrass in many areas. The turf type rye grasses have finer leaves, greater density, somewhat better mowing qualities, longer persistance, and a somewhat slower rate of vertical growth. In some of the better varieties, outstanding wear tolerance has been noted. Progress has also been made in improving resistance to some important diseases and increasing tolerance of heat and cold.

Some of the diseases which attack the turf type ryegrasses are dollar spot, brown patch, stem rust and crown rust. Dollar spot on ryegrass will occur when nitrogen fertilization is kept at a minimum. Brown patch will cause problems in hot, humid weather. Stem rust occurs mainly under hot temperatures, while crown rust prefers cool weather.

One new variety, SYN-456, proved to be a wear tolerant, brown patch resistant turf type ryegrass. However due to its expensive nature it is, as of yet not available on the market. Many other varieties of turf type ryegrasses evaluated at the Rutgers Adelphia plot areas promised favorable performances as well.

Louis P. Mytych, Rutgers University

Low Maintenance Turf

Plots were planted in 1967, since 1972 they have been left alone. None of the normal turf maintenance procedures were carried out—no water, fertilizer, fungicide, herbicide, aeration, etc. The soil on which the plots have been planted, was dredged from the lake and was mostly sand and gravel with little inherent fertility or moisture holding capacity.

Grasses tested were: bluegrass (Merion & Kentucky), which when compared to Red Fescue (Penn. Lawn) faired poorly under low nutrient conditions. Bentgrass, fine from Florida and coarse from Australia, held up very well with the inherent low fertility of the soil. The coarse Australian held up particularly well under high traffic conditions. The roots and rhizomes showed good development. Zoysia held up well under the conditions and spread rapidly soon growing into the adjacent plots. The loss of color in winter and rapid spreading may make this less desirable. The fescues (Red & Tall) and rye grasses hold up very well under low fertility and maintenance conditions.

Renovation is best done by using "ROUND UP" at a rate of 2 lbs/acre. This has a very short wait period. The turf should then be run over with a thatching machine. The Ryan spikeaire or a similar machine, with fixed blades is better than the flail type machine. The fixed blade machine penetrates the soil and is more efficient at removing thatch.

Zoysia must be treated more frequently with "ROUND UP" and should never be rototilled. Tilling leaves some of the Zoysia behind, and that will spread rapidly, competing with the desired grass.

Kevin McClintock, State University-Plattsburg

Seed Bed Preparation

There may be times in turf grass management that require some areas to be renovated. By this I mean, a cultural practice that goes beyond routine management. This is not a complete reworking of the soil. It may be caused by thinned out turf, winter kill, weeds, disease or environmental stress. One of the ways that you may renovate is to overseed the area with grass seed. However, this could be a waste of time if proper consideration is not given to the seed bed preparation. If grass seed is just spread over the area without any type of cultivation first, chances of new grass establishment is very low. One of the most important factors in turf grass establishment is good seed and soil contact. It is for this reason that you must use mechanical methods of selectively tilling an established turf without destroying the sod characteristics. One of the best machines for the operations is a vertical mower. This machine involves the use of vertically operated rigid or flexible blades or wire tines that cut or pull into the turf, leaving grooves in the soil that the grass seed will be more apt to germinate and survive in. In these grooves the grass seed will find better environmental conditions for germination and survival. The

seed is better protected from drought and competition in these grooves. There will be more moisture for when the seed germinated and the seedling will find rooting easier. It is very noticable when seeding is done after using this machine. The only places the grass seeds grow is in the grooves which proves it is worth the time and effort to prepare the seed bed.

Denzil Rice, Stockbridge School of Agriculture, U. of Mass

Station #9—Presented by Dr. P. Halisky

Red Thread Disease

Red Thread Disease is a fungus on top of the soil surface, bearing no spores. This slow moving disease infects *all* turfgrasses, but mainly fescues and ryes. It occurs more commonly in cool and humid areas at the time of mid to late spring (May & June).

Conditions favoring Red Thread are:

1. Cool weather—60° to 75° F, coupled with prolonged periods of high humidity (light rains, fog, heavy dews and moisture-saturated air).
2. Wet Weather
3. Low Nitrogen Fertility
4. Slow Growning
5. Species Infected (Red Fescues, Perennial Rye [Manhattan]).

The cure for Red Thread is not known as of yet. Some control has been discovered with such commercial products as Acti-Dione, "Tersan" 1991, and Chipco 26019.

If Red Thread is a regular problem, carefully increasing the nitrogen fertilizer in the program is needed. The soil reaction (ph) should be between 6.5 and 7.0, to achieve maxium elimination. Dennis Petruzzelli, Cobbleskill College

Nitrogen Carriers

Presented by R.E. Engel

Nitrogen carriers can be subdivided into 3 groups on the basis of whether they are of an inorganic or organic source and whether they are synthetic or natural. The three groups are synthetic inorganic, natural organic and synthetic organic.

Of these three nitrogen carriers all of them were present at the turfgrass show. They were used on two sets of six plots. One set of six plots were 22 days old and the other just 5 days old. There were six different nitrogen carriers used on both plots, the only differance was in time they were used, either 5 days or 22 days. I am going to break up each plot and the carrier used on that plot and give the results and helpful information on each nitrogen carrier.

Plot 1—Synthetic Inorganic NC

Ammonium nitrate (NH_4NO_3) is widely used as a nitrogen carrier for turfgrass fertilization. Ammonium nitrate contains 50% of its nitrogen in the nitrate form and the other half in the ammoniacal form. Ammonium nitrate is a quick release and water soluble fertilizer which gives you a very fast plant response. This is handy if you want quick greening before a tournament but it can also turn your turf brown just as fast. Ammonium nitrate should be applied in low rates and must be watered it. If you are not satisfied with the results of your first application you can always make another one but you can't pick up what you have already put down. Ammonium nitrate tends to harden and cake unless properly conditioned during manufacturing process and it also is a substantial fire and explosive hazard. Dr. Engel approves and favors quick release fertilizers and the results on both plots were good.

Plot 2—Natural Organic NC

Activated sewage sludge is one of the more common natural organic nitrogen carriers used for turfgrass fertilization. Activated sewage products are made from sewage and is aerated in big tanks after being innoculated with microrganisms. The result is organic matter which is filtered, dried in rotary kilns, ground and screened. The activated sewage sludge is steam sterilized by drying in hot ovens to kill weed seeds and some organisms. The most popular are Milorganite which is produced in Milwaukee and Hu-Actinite which is produced in Houston. From what I understand Milorganite contributes large amounts of micronutrients, like maganese, zinc, copper and boron which help to support plant growth. Also, results from tests show that milorganite seems to decrease dollar spot and pythium on ryegrass and bentgrasses. One of its greatest qualities is that it won't burn and no water is needed. The temperature is no factor to consider, unlike most fertilizers. Activated sewage sludge is a slow release fertilizer which will cost more than a fast release fertilizer, but a slow release will stay in the soil longer and won't burn. Dr. Engel seemed to shy away from the slow release fertilizer and leaned toward quick release. The 22 day old plot was showing a small amount of greening but not much and the 5 day plot showed very little if any at all.

Plot 3—Synthetic Organic NC

Urea CO (NH2)2 is a water soluble fertilizer which contains about 45% nitrogen. It has all the characteristics of a Synthetic Organic Nitrogen carrier which are the following: high water solubility, fast plant response, short residual response, leaching, high burn potential, and high rates of gaseous ammonia loss compared to most water soluble nitrogen carriers. This plot had some growth and a little greening but not as much as plot 4 which is Sulfur coated urea.

Plot 4—Synthetic Organic NC

S.C.U. S CO $(NH_2)_2$ is a form of urea. I don't really know too much about it except in comparison to plot 3 which is plain urea. It had more growth and more greening. This is a new Synthetic organic nitrogen carrier. Maybe, it will take the place of plain urea. The effect takes 3-6 weeks and it has only 3 weeks and 1 day so it does a good job. The sulfur is the reason for the extra growth in plot 4 and not 3.

Plot 5—Ureaformaldehyde UF

Ureaformaldehyde UF is the primary nitrogen carrier in the water insoluble synthetic organic group. UP is a combination of urea and formaldehyde. It usually contains 38% nitrogen which is largely in an insoluble, slowly available form. UF has characteristics almost like the natural organics. These are the intermediate initial release rate, low burn potential, low water solubility, reduced loss by leaching, high cost per unit of nitrogen, and the long residual response. Fair to good growth results.

Plot 6—I.B.D.U.—Same as Plot 5

Joseph McGuire, Lake City Community College

Editor's Note: Our thanks to John Wistrand of Metro Milorganite, Inc. for forwarding this article to us. It sounds like good news. *Pat Lucas*

NEW ROUNDUP USES ARE APPROVED

Monsanto Company has now received Environmental Protection Agency registration acceptance expanding the use of its Roundup herbicide in several areas.

—The following weed, tree, and brush species have been added to the label for Roundup: Texas blueweed, kikuyugrass, reed canarygrass, cattails, Oaks, Maples, Berries, Willows, Honeysuckle, Kudzu, Multiflora Rose, and Trumpet Creeper.

—dry ditches, dry canals, and ditchbanks—may be treated when not carrying water or after final drawdown in irrigation systems. In crop sites, furrows and ditches within labeled crop sites may be treated when not carrying water as long as timing is in accordance with the specific crop label.

—Non-crop use of the recirculating sprayer—controls the same labeled species as recirculating sprayer applications in cotton and soybeans.

—Ornamentals—any ornamental species may be planted following an application. When a directed spray is used, applications may be made only around particular species on the label.

Roundup is a foliar-applied, non-selective herbicide sprayed when weeds have reached a vigorous stage of growth. When applied directly to foliage, it is described as trans-locating throughout the plant, destroying above and below-ground plant tissues, including the reproductive root system. Application rates and timing vary according to the weed species being treated.

Following an application of Roundup, visible effects in most annual weeds occur within two to four days; but, in most perennial weeds, visible effects may not occur for seven days or more.

Credit, Farm Supplies, June, 1979

THE GIFT OF SIMPLICITY

Dedicated to Mr. Peter Gogolak

Ignored is the word "Simplicity."
Perhaps—
This is why there's much complexity.

We yawn to the ego-jazz of elaborate blaring.
And to the affected imposture of an Elmer Gantry.
Happily, one arises who hadn't blown the night.—
Not on a trumpet that fingers a wearisome plight.

This Speaker, is un-adorned and brisk as a breeze.—
As He bridges-the-span with imparting ease.
Blending chromatically within his key.-
Soothing as the violin-strings of a symphony.

Gifting us with a gentle touch-of-simplicity.

Frank Paladino

DRY PATCH

Soil Scientist Roy Bond of CSIRO in Adelaide, Australia, has isolated a type of fungus that invades the sandy base of golf greens and coats sand grains with a water repellant layer of organic matter. Wetting agents failed to correct the problem but introduction of loam soil into the sandy soil helped. This might help us remember that slow water percolation on a turf soil is not always caused by too many fine particles in the soil mix.

Credit: Green World, Volume 8, Number 1

Editor's Note: The following article by Marilyn Pelo taken from the April 16 issue of New York Magazine should be of interest to anyone who deals with contractors. *Pat Lucas*

HOW TO CHOOSE AND USE A CONTRACTOR

The homeowner-contractor relationship is seldom dispassionate. Endless horror stories about incompetence, deliberate sabotage, and take-the-money-and-run operations have made homeowners paranoid and contractors defensive. Arguments over both real and imagined problems are commonplace, but many can be avoided if things are handled right from the beginning.

From interviews with several contractors and industry observers, here is a skeleton course in hiring and coping with a contractor.

The job: A contractor is responsible for turning sketches and drawings into reality. He orders and pays for materials and hires all workers. He is responsible for scheduling, supervising, and paying these workers.

Types of contractor: The general contractor works directly on the project as supervisor. His workmanship is usually quite good; his paperwork is often sloppy or slow.

A construction company, on the other hand, works on several projects at once. You can be sure it will meet deadlines—though it may sacrifice workmanship in order to do so. These firms usually work only on high-budget jobs, and many require that you retain an architect or designer. Almost invariably, they hire high-priced union workers.

Licensing: The city Department of Consumer Affairs requires that all contractors who work in the city be licensed. About 2,900 are; far more are off the rolls, and many people prefer them because they are often cheaper.

Insurance: The state requires contractors to carry workmen's compensation insurance; the city requires liability coverage. Many carry neither. A prudent homeowner will consider extending his liability and damage coverage to avoid a costly lawsuit in case someone cuts off his thumb or triggers the sprinkler system.

Finding a contractor: The best way is by asking friends and business associates. The best small-job general contractors work by referral only. Unfortunately, the Yellow Pages and classified ads should only be used as a last resort.

Hiring a contractor: If possible, interview several and ask them to submit bids on the job. Be sure that they are bidding from identical sketches and specifications, or any attempt to compare will be meaningless. Ask for references. You'd be surprised how much you can learn over a drink with someone the contractor has worked for. Try to see examples of his finished work. If the renovation is going to be major, as for financial references or proof of bonding. He also may ask you for financial and personal references.

Fees: Most contractors work on a "cost plus" basis, charging the cost of the project plus their fee. Some take a fixed fee; others work for a percentage of the cost, usually 15 to 30 percent. A fixed fee, if you can get one, is best because an unethical contractor can always use cost overruns to his advantage. However, many reliable contractors insist on a percentage. A good contractor will ask for a small deposit with payments upon completion of various stages of the work. The best will ask that you hold the final payment for 30 to 60 days to be sure you are satisfied with the work.

Agreements: Do not pay any money or allow work to begin before a written contract is signed. If the contractor has his own agreement form, have a lawyer look at it. Or use the American Institute of Architects forms A101 and A201. These are used nationally and are available from the AIA, at 20 West 40th Street in Manhattan.

At the very least a contract should include:

☐Plans and sketches of the work to be done.

☐A list of materials, quantities, brand names, styles, and serial numbers. Do not allow any "or equal" clause permitting the contractor to make substitutions without your permission.

☐A production schedule (what should be done by when).

☐A payment and fee schedule.

☐The contractor's certification of insurance.

☐Notification of your right to cancel the contract within three working days *after* it has been signed.

Read through the contract carefully several times to be sure you know it thoroughly. Make sure it includes all doorknobs and closet rods and all the necessary little things that the unscrupulous contractor can leave off.

Changes: Just bear in mind that once work has begun, any change, no matter how small, can delay completion and will increase costs. Detail any change in a letter, asking the contractor for a cost estimate. Make it clear that no change is to be made until he gives you the estimate in writing and you have approved it in writing. Give him two copies of every memo, one to initial and return, and one to keep. Insist that he do the same with any changes he must make, though he will complain about all this paperwork. Experts agree that changes and additions are the biggest cause of cost overruns.

Communication: Appoint one member of your household as spokesman and you'll avoid a huge number of fights. Similarly, keep in mind that your spokesman should communicate only with the contractor, not with the workers. Be especially careful not to boss the workers around. They work for the contractor, not for you. Marilyn Pelo

$50,000 FERTILIZES GRASS STUDY

It's back to the grass roots at Ohio State University where workmen are completing a $50,000 underground laboratory that scientists will use to watch grass grow.

"The most important part of the plant is the root and that's the part we know least about," said OSU agronomist Dr. Keith J. Kernock, who will be in charge of the lab. "Scientists only have a general idea now when and how much to fertilize."

Kernock said the lab, called a rhizotron, will be used to learn how much cold, heat, fertilizer, water, mowing and other practices make grass thrive.

The lab, which opens early next month, is Kernock's brainchild. He said its proper name is a rhizothron-lysimeter and it is perhaps the only one of its kind in the world because the lab is equipped to accurately measure how much water is being utilized by the plants.

Despite a plethora of pamphlets, gardening books and video advice on how to treat your lawn, Kernock said there is relatively little exact information about how turf grass develops, especially the roots.

Kernock said more detailed growth information is needed by golf course managers and groundskeepers, as well as by a few fanatical homeowners who are all part of Ohio's $300 million turf grass industry.

Kernock says $15 billion is spent on lawns each year in the United States.

He said watering and fertilization can be made to work better by knowing when and how much to put on.

The rhizotron is a space-age name, but the idea is simple. Scientists walk underground into a long hallway in the lab and observe the roots of grass growing on the surface in 30 glass-fronted compartments. The lab has time-lapse microscopic photography equipment. On the surface is a complete meteorological station used to keep tabs on wind speed, direction, rainfall, humidity and other weather factors.

Kernock said the lab will help homeowners. He said some gardners overwater their lawns and others overfertilize, especially in August when there isn't enough rainfall to support the extensive leaf growth the fertilization stimulates.

Kernock's lawn fertilization time applies nitrogen to your lawn in June and at the end of August at the rate of about three quarters of a pound per 1000 square feet. Then apply 1½ pounds in October and another 1½ pounds in spring.

Credit: (AP), Advocate, Stamford, Conn., June 20, 1979

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NINE WAYS TO NEGOTIATE A RAISE

Many people who have no trouble dealing with their superiors in most day-to-day situations find it very difficult to ask for a raise. If you're fainthearted at negotiation time, consider these recommendations to ease the process:

- Know your worth. Ask yourself how valuable you are to the course, how much would it cost to replace you, what have you done lately to help the organization.
- Pick you place. Get your boss outside of the office to listen to your request. Take him to lunch if possible.
- Detail your reasons. Tell you boss *why* you deserve a raise.
- Suggest an amount. You, not your boss, should propose the amount of your possible raise.
- Set your figures high. Ask for more than you expect to get. This leaves room to bargain.
- Compromise—but not too easily. Since you've started with a high figure, realize you probably won't get it. Let your boss make a counter-offer, and be ready to compromise.
- Rehearse. Don't go into negotiation cold. Be sure to be in top mental and physical condition when the actual talks begin.
- Get it in writing. If possible, get your boss to put it in writing—for both signatures—the raise he agrees to.
- Don't wait—ask. Don't wait around for the company to recognize your value and give you a raise. Ask for it. Your aggressiveness may pay off.

Credit: Forefront, May 1979

Editor's Note: Our thanks to Lloyd Hughes for forwarding this article to us. *Pat Lucas*

THE CASE OF THE PUTTER THAT KILLED THE GOOSE

One way of looking at it is that Dr. Sherman A. Thomas birdied the 17th hole at the Congressional Country Club in Bethesda, Md. But such jokes are not up to par to the United States Fish and Wildlife Service. All it knows is that it has a dead Canada goose on its hands, and it has filed against Dr. Thomas some of the more unusual charges ever brought under the Migratory Bird Treaty Act of 1918.

On May 3, the doctor apparently clubbed a goose to death on the 17th green, but the reason is in dispute. He says he accidentally hit the bird with an approach shot, and bludgeoned it with his putter to put it out of its misery. Another version, however, is that he felt the goose's honking had caused him to flub a shot, and, in a rage, he went after it.

The country club has been thinking about expelling Dr. Thomas, and now the Wildlife Service has gone even further with two misdemeanor counts that could cost him $500 in fines and six months in jail if he is convicted. The charge: killing a goose out of season, which in Maryland ended January 26.

The law lists many prohibited ways of hunting migratory birds—bait, unplugged shotguns, electronically amplified bird calls—but Kurt Schmoke, the Federal prosecutor in the Thomas matter, said, "No one has been able to turn up a putter case before."

Credit: The New York Times, Friday, June 1, 1979

Tee to Green

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