# NEWSLETTER

MAY, 1969

Golf Course Superintendents Association

OF NEW ENGLAND, INC.

Sponsors and administrators of the Lawrence S. Dickinson Scholarship Fund — Awarded yearly to deserving Turf Management Students.


## WHEN IS A FRIEND A FRIEND?

Tony Caranci, our beloved leader in residence, has a bone to pick with a certain few of our so-called "friends" who, at best must be described as "revolving friends."

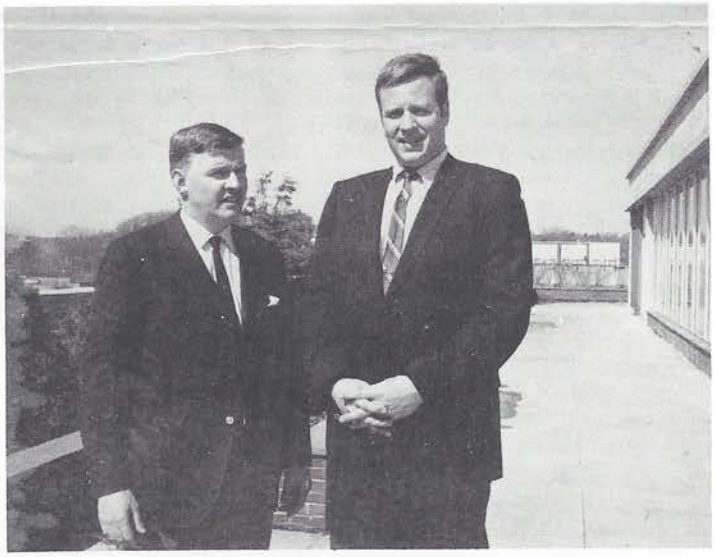
There seems to be a ploy effected by some fifty-dollar, back-page name droppers who come in as friends for a single session for the express purpose of obtaining the association's mailing list.

"I don't call that cricket", Caranci cried recently between puffs of a Garcia-Vegas. "Definitely, we are not in the business of courting any advertisers. We think our method of using company names on the back of our Newsletter is done in good taste. We expect them to reciprocate in like manner. Otherwise we'd just as soon go out in the street and peddle our mailing list to the highest bidder."

Tony hopes by this little feedback on the few, who have taken advantage of the situation, that the many don't consider themselves guilty by way of insinuation. "This is an unfortunate occurrence", the Association president noted. "I know that some of our friends are going to look upon my words as a direct accusation of the whole. This I want to make clear. We are forever grateful of their co-operation. But, in a way, we are acting to protect them. The mailing list is one of the benefits of that fifty-dollar donation. We want it to remain an exclusive piece of information."

When is a friend a friend? If you are involved, just ask yourself. The answer is elementary. No diagrams are needed.

— Gerry Finn



Ted Murphy, L is talking to Spencer Thompson R of the Monsanto Company.

## NEXT MEETING

The next meeting will be Monday, May 5, 1969 at the Sharon Country Club, Sharon, Mass.

| | |
|---|---|
| Expense Committee | 10:00 a. m. |
| Directors' Meeting | 10:30 a. m. |
| Regular Meeting | 11:15 a. m. |
| Dinner | 12:15 p. m. |
| Golf Tournament | 1:15 p. m. |

The golf tournament will be the Lawrence S. Dickinson Memorial Trust Tournament.

Joe Silk is the super at the Sharon layout. He is 31 years old and graduated from Stockbridge at the University of Massachusetts in 1962, prior to that he was employed at the United Shoe under Joe Butler. After college Joe assumed the duties as superintendent at the Pine Meadows Golf Club in Lexington until 1966 when he took over the super's job at Sharon. Joe is a dedicated bachelor and resides in the Kenmore Square area of Boston.

(DIRECTIONS TO SHARON). Rt. 128 to Rt. 95 south towards Providence, take the second exit (Cooney St.) and go left on Rt. 27 to Sharon Sq. Take Pond Street out of the square and then left on Ames St. (1 mile), and follow this to the entrance of Sharon.

## APRIL MEETING

The April meeting was held at the Holiday Inn, Newton, Mass., and about seventy turf managers and friends attended the meeting. Spencer Thompson of the Monsanto Company talked about Astro-turf and its relation to golf courses. President Caranci appointed the following committees: Survey Committee: Dick Blake, chairman, Dean Robertson, Many Francis, Jr., John Callahan, and Wayne Ripley. The Expense Committee will be chairmaned by Bob Grant and the following will assist him: Joe Butler, Red Shultz, Lou Duval, Leon St. Pierre, Phil Cassidy, Ted Murphy and Julius Atksen. There will be a meeting of the expense committee just prior to the next directors' meeting at 10:00 a. m. on May 5, 1969.

Application for Associate Membership to be voted on at the next meeting: Richard A. French, 200 Howe St., Methuen, Mass.

Golf Course Superintendents Association

## A TOUCH OF PARADISE

Spotted off the gold coast of Florida . . . where commercialism loses its identity . . . stands Marco Island with its budding Marco Island Country Club and peacock-proud superintendent, Charles (Chuck) Almony.

Marco's golf course, which at present forms the center of social life on the developmental strip of paradise, is a real start-from-scratch venture of the island's exuberant owners . . . the famed Mackle Brothers.

Almony's position is one of those rare relationships with the ideal employer. "The Mackles want Marco to be the nicest course in Florida", Chuck reveals. "They mean to do it at any expense. I think my setup is rare, because I don't have to worry about budget battles. I pretty much have a free hand in obtaining equipment and physical help. It's a pleasant departure from the typical country club demands of producing perfection on a shoestring."

The creed at Marco Island is one of improvement. Almony, who was imported from the Speedway Golf Course in Indianapolis to put a sparkle on the Mackle gem, is just as enthusiastic over his assignment as his bosses. He's trying for perfection and won't be satisfied until Marco is recognized as the pearl of the Florida golfing scene.

At present Almony directs a crew of 16 in the task of maintenance and perking up the place. Marco is part of the Everglades and the transition from wilderness to wonderment is something just short of a miracle.

All of the grass on the course has been sod-laid. One of the remarkable points of leading the course to perfection is the immaculate condition of its tees. They are honed to fine-turf state, making them almost as smooth to the touch as the greens. "It is the eventual aim of the owners to have our fairways cut and pampered just as our tees are", Almony beams. We're working on that project now . . . and it's coming along."

Marco is not a treacherous layout in degree of difficulty. It allows for most of the protection of the scorecard from the wind and delicate positioning of traps. "The wind usually runs south to north", Almony tells. "That's what gives the players fits. I don't think the traps are that dangerous. In many cases they're positioned to help the player."

There are 140 traps on the course with more to come. "We've added 26 in the last six months", Almony says. "But, as I noted, many of them help the players. In tight situations, where out of bounds or water hazards could hurt the score, there are traps to catch a player's ball headed in those directions."

Almony claims there are no major problems at Marco, other than a source of water for irrigation. Salt tends to filter into the reservoirs of fresh water but the Mackles are working to clear up that situation, too.

Marco is open 12 months a year with its lushest period coming between September and November. However, there are certain periods when Almony has the course to himself for his work. "When they say they're going to close the course for two or three days", they (the Mackles) mean it. "There is a great sense of co-operation between the owners and myself. We both have the same goals and respect each other's opinion. I can't say the same about other places I've been."

Marco Island appears to be a touch of paradise in more ways than one. From a superintendent's standpoint, it sprinkles in a little Utopia, too.

— Gerry Finn

## WINTER INJURY

*A. ROBERT MAZUR*
*Agronomist, Eastern Region, USGA Green Section*

Recently there have been frequent inquiries from superintendents, greens chairmen, and members as to what should be done about ice on greens and about winter injury in general.

### *Hardening Off*

There is no grass or specie of grass that is winter proof in the true sense of the term. Through the use of proper management we hope to aid the built-in physiological processes of the plant, to better enable them to survive the extremes in temperature during the winter months. It is important for the plant to enter the winter months in a state of reduced metabolic activity. The "hardening off" process, as it is termed, reduces the amount of unbound water in plant tissue which consequently reduces the degree of injury from freezing. Judicious management of fertilizer, particularly the amounts of nitrogen, and moisture are essential steps in acclimating the plant for the winter season. The use of ample potash and phosphorus during the fall appears to balance the effect of nitrogen in the plants and negate some of its adverse effects.

### *Water Management and Drainage*

Water management during the fall is also very critical. There has to be adequate soil moisture to limit the degree of injury to root systems from the thrusts of freezing and thawing. Normally, fall rains will provide adequate moisture; however, if it is a dry fall then irrigation will be necessary. Good drainage is one factor that always accompanies irrigation. The fact that low and heavily thatched areas which retain a high percentage of moisture are often the most severely affected should be considered. The removal of a strip of sod or installation of slit trenches through the low areas will greatly improve drainage and consequently should improve winter hardiness. The sod strip should be located, often in a sand trap, so that it can be easily replaced in the early spring.

### *Disease Control*

If the grass plant is physiologically conditioned and the relative amounts of free moisture minimized, the problems with disease are greatly reduced. It is essential to continue mowing as long as there is leaf tissue to cut, in order to minimize layering and potential areas for harboring disease. Fungicides containing mercury (organic and inorganic) and cadmium have been shown effective for the control of snow mold. The trend towards fungicide treatment earlier in the fall, at about the time the leaves begin to fall from the trees, has shown considerable merit in several localities. A second treatment should be applied in late winter to insure control.

### *Desiccation*

Desiccation is a word that has become quite familiar in the Northeast. During the winter months, the grass plant continues to respire to a limited degree, largely depending on its internal water supply. During the dry windy weather of an open winter, severe drying or desiccation can take place as soil water, for replenishment of plant moisture, is available only in very limited quantities. A late fall topdressing at twice the rate used during the growing season cuts down moisture losses considerably. Snow fence and brush are often used to accumulate snow which has a blanketing effect on moisture dissipation. Although the snow gives protection from desiccation, it provides favorable conditions for the development of snow mold. The use of polyethylene materials has been of questionable benefit and requires exact timing for the removal of these materials in the spring. There has been some talk on the use of anti-desiccants but these would best be evaluated on a test basis. Materials used as anti-desiccants should be certified low in monomers and soluble salt content to minimize any chance of turf injury.

(Continued next page)

# NEWSLETTER

**SPECIAL EDITION**

## Golf Course Superintendents Association

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## THE SOUNDS OF SILENCE

There is a rather unique form of noise pollution, reported to be very harmful to that easily-rattled cult of concentration . . . the Great American Golfer who demands that he apply his talents in the still of the day under the threat of planting a wedge in the skull of the culprit causing the disturbance.

Naturally, the prime suspect in ungluing the golfer from a one track-minded devotion to his score is the opponent. Not far behind on the hate parade, too, is the course superintendent and those wretched members of his crew who stalk the fairways, greens and traps with shattering sounds.

The golfer, himself, often tunes his hearing senses to the one great crack in his concentration . . . usually the most inconsequential. Here is a typical occurrence at the Oxford Country Club, a nine-hole extension of the runway at Westover Field whose takeoff pattern cuts through the heart of the course. There is more quiet in the middle of Logan Airport.

Anyway, picture the scene. With cannon fire overhead — the roar of hotrod traffic to his right — and the cascading of spring-high Chicopee River to his left, our man bends over a four-footer on the first green. He stands oblivious to the obvious when two fairways away, a course worker pauses to take a drink from a bubbler. He twists the handle simultaneously with the putting stroke of "Four-Foot Freddy". The ball misses its mark. "I'll have that man's job", Freddy screams in the direction of the water cooler. Alas . . . the sounds of silence are at work.

Leaving Oxford where the language gets bluer by the backswing, we can travel to the "Anywhere, USA Golf Club." On this particular occasion where the fairway runs adjacent to a railroad track, a new victim gathers his muscles and takes a widespread glance at the surroundings to make sure his concentration is safe. Down the track chugs the 10:02, a rattler approaching the age of retirement. Back on the tee a joke-telling foursome erupts with deafening laughter. But our man blocks them out as he takes a pivot in anticipation of a four-iron beauty to the green. Again, he's attacked. This time a worker those 160 yards or so away on the putting surface can't control himself. He sneezes, the ball is topped . . . and there will be hell to pay when "Four-Iron Fran" reaches the green.

How many decibels does a twist of the water bubbler throw out to the world? Can a sneeze many noses away be heard above the screeching cry of a freight car? Indeed, they can. These are the sounds of silence . . . a very special form of noise pollution. But, then, this is a very special working world in which the superintendent toils.

— Gerry Finn

# NOISE POLLUTION

## FOUR DEFINITIONS

NOISE — unwanted sound. Luckily, with noise two-plus-two does not equal four. Ten motorcycles are not ten times as noisy as one motorcycle but twice as noisy.

DECIBEL — the unit of measuring the loudness (intensity) of a sound. Zero on the decibel scale is the slightest sound that can be heard by the best ears and so weak that it moves the eardrum one-tenth the diameter of a hydrogen atom. The scale goes up logarithmically, the perceived loudness approximately doubling every ten decibels. Since the blast of a jet engine at takeoff can reach 150 decibels — 1,000,000,000,000,000 times as intense as the threshold of sound — the human ability to hear anything from rustling leaves to a jet blast makes the ear like a balance which can weigh anything from a postage stamp to an ocean liner.

PITCH — tone level. Pitch is determined by how many times per second the sound waves vibrate. The lowest note on a piano has a frequency of 30 cycles per second; conversation ranges between 200 and 6000 cycles; and a "silent" dog whistle gets up to 14,000 cycles. The high-frequency noises that we can hear seem louder to us and are more disturbing, decibel for decibel, than low-frequency noises.

SONIC BOOM — the loud *bang* and change in air pressure of the shock wave which every plane flying faster than the speed of sound (about 700 miles per hour) drags along behind it. The boom isn't a one-time nuisance, occurring only at the precise moment the plane crosses from sonic to supersonic speeds, but follows along behind the plane for the entire duration of the supersonic trip.

## DECIBEL SCALE

| | | |
|---|---|---|
| EARDRUM RUPTURES | 140 | jet taking off |
| PAINFUL TO EAR | 120 | siren<br>jet revving its motors for takeoff — maximum allowable for hearing<br>roar of a two-engine prop plane |
| DEAFENING | 100 | thunder<br>car horn at 3 feet — loud motorcycle<br>loud power lawn mower |
| VERY LOUD | 80 | portable sander<br>have to shout to be heard<br>food blender<br>continued daily exposure brings about loss of hearing<br>noisy cocktail party<br>impossible to use telephone |
| LOUD | 60 | city playground<br>vacuum cleaner<br>noisy office<br>average traffic<br>point at which use of the telephone becomes difficult |
| MODERATE | 40 | suburban playground<br>all right for a restaurant<br>average living-room |
| FAINT | 20 | quiet enough for courtroom or classroom<br>private office<br>a whisper at 5 feet |
| *THRESHOLD OF AUDIBILITY* | 0 | rustling leaves<br>breathing |

NOISE is a true environmental pollutant. Like air and water pollution it damages our health and lowers the quality of our life. In Europe the malignant effects of noise on the total environment are well recognized. In Sweden, for example, the State Power Board's one-year course in pollution control trains engineers to deal with water, air, *and noise* problems. Here, we are barely beginning to realize what a growing menace noise pollution is and that it must be curbed.

## HOW NOISE AFFECTS US

Reactions to noise are more subjective than they are to smog or a drink of polluted water. About a fourth of the population say they are not disturbed by any noise, however loud; these are the people who should live near airports. One in ten is hypersensitive, but because he dislikes almost any noise not of his own making, his complaints are ignored. In between come the rest of us, and we are more sensitive to noise on some days than others. In general we find high-pitched noises harder to take than low, and any noise sounds twice as loud at night.

The most specific effects of noise are on hearing. A loud blast such as an explosion deafens everyone momentarily. (At the same time it arouses an "alarm" reaction so primitive and automatic that even newborn infants cry out with terror.)

Permanent hearing loss comes only from repeated or continuous exposures. Everyone agrees that an eight-hour daily exposure to 80 or 85 decibels leads to severe hearing damage. Until recently this was thought to be the only damaging effect of noise on the ears. But doctors now suspect that our high *community* noise level — traffic in morning and afternoon and TV at night with occasional additions from police sirens, planes overhead, car horns, and vacuum cleaners — helps account for the deafness of older people in all industrial countries and especially in ours.

Noise has other measurable effects. It raises blood pressure, lowers efficiency, and triggers ailments like stomach ulcers and allergies. It is the main cause of loss of sleep. The World Health Organization says it can be harmful even when it is not consciously heard. Dr. Vern O. Knudsen of the University of California sums it up as "a slow agent of death." And, as a matter of fact, 160 decibels — only a few more than the sound of many jet planes at takeoff — is lethal to mice and similar small animals.

## THE THREE BASIC WAYS TO COPE WITH A NOISE PROBLEM

Surround the noise *source* with sound-absorbing material.

Surround the *people* who would be disturbed by the noise with sound-absorbing material.

Install a sound suppression device *between* the people and the noise source.

# WHAT WE CAN DO ABOUT NOISE POLLUTION

Noise IS pollution. And the United States is the noisiest country in the world and getting noisier.

The background din of modern life comes from machines. Noisy power lawn mowers and motorcycles generate levels of loudness formerly found only in boiler factories. American kitchens with three of four appliances operating at once have been clocked at 100 or more decibels. We also have long exposures to air-conditioners (often 70 or 80 decibels), city traffic (with a mean average of 78 decibels at a Boston school playground during recess) and all-day drives (which leave most people with a temporary loss of hearing).

Since the machines are here to stay, what can we do about the noise?

We can begin by making better use of the mechanical mufflers and other silencers we already have. The Paris and Montreal subways are equipped with rubber-tired wheels, and ours could be too.

Actually, most noise nuisances can be controlled by new devices. Among recent American inventions are a "silent residential quality" attachment for pneumatic drills, steel mesh blankets to muffle blasting, a quieter pile driver, and even a portable ground muffler for jet planes to reduce sound during warm-up periods. Acoustical engineers, who can build quiet motels in the middle of airports, know all the techniques for sound-proofing buildings, from what kind of partition makes the best sound barrier to how to mount apartment doorbells so that the only ring you hear is your own.

The din of traffic, rated in one large survey as more annoying than all other noises put together, can be reduced with the improved mufflers now available for all vehicles including trucks and motorcycles. New materials have been developed to make quieter road surfaces, and there are even quieter tires.

The rewards of a quieter environment need more publicity. They are much commoner than most businesses and individuals realize. It is no accident that of the four main centers of noise pollution (industry, airports, traffic, and buildings), the noisy industries have made the best progress in solving their noise problems. They began to worry about noise in 1948 when a New York worker won the first damage claim for loss of hearing acquired on the job. Now that claims amount to $2 million a year, noise abatement gets serious attention.

Practical incentives exist for builders too. In New York City some new high-rise apartments are unprofitably empty because of internal noisiness. And in the suburbs sound-conditioned houses sell faster than similar houses without anti-noise features even though they cost several hundred dollars more.

Noise abatement pays in many other businesses. Studies at Colgate University showed that the average worker spends one-fifth of his energy fighting noise. When the noise level drops, output goes up and absences and employee turnover drop.

When incentives are lacking, noise control laws and regulations must take over. Julius Caesar originated the legal approach to the quieter life by banning night chariot-driving in the streets of Rome. His example is followed today by every country in northern Europe from Britain to the USSR. European noise-abatement regulations include acoustical building codes, local ordinances forbidding the use of motorcycles during sleeping hours, and even national laws forbidding transistor radios in public places.

In comparison, we have no federal noise-abatement laws, very few state laws, and nothing more helpful on the local level than ordinances against disturbing the peace. Typically, the peace can be disturbed only after 11 P.M. and then only by a noise nuisance coming from a nearby home.

The final and most important weapon against noise pollution is public pressure. For years the people who live near airports have been writing their Congressmen, signing petitions, and attending hearings by the busload to make their objections to the racket known. They sue the government for loss in real estate values and incite their public schools to sue the airports for impairing education. They have made the airport noise problem so notorious that towns unite instantly to keep proposed airports as far from their borders as possible. And while airports are still very noisy, they would be much noisier if public pressure had not forced the aircraft industry to spend millions of dollars a year on noise-control research and the federal government to regulate flight patterns and even set up noise limits at night.

If nothing is done about noise pollution, in ten years our environment will be twice as noisy as it is today.

Do we want that?

COURTESY OF KOPPERS

## THATCH AND MAT CONTROL: A YEARLY OPERATION

*By James W. Timmerman, Eastern Agronomist*
*USGA Green Section*

In our travels around the region we encounter many problem greens. Upon close inspection one of the major causes of the trouble can be attributed to the accumulation of mat and thatch. Although similar, mat and thatch denote two different conditions. They are both the result of an excessive build-up of vegetation. However, mat is associated with living plant material and is a surface condiiton, whereas thatch is associated with dead or dying material and is an underlying condition. They can occur together or separately.

Mat can be described as an accumulation of living, overgrown and tangled mass of vegetation. It is caused by rapidly growing plants, by a growth habit that produces a tangle of prostrate stems and leaves, and by faulty mowing practices. A matted condition is reflected by sponginess and fluffiness of the turf surface. It can be detected by signs of scalping, scuffing and uneven mowing. Golfers recognize this condition easily by complaining that greens lack trueness in putting.

Thatch on the other hand is a layer of dead roots, stolons, stems and clippings interspersed with dying roots and stolons that have ceased to function. This layer builds up between the soil surface and living vegetation. It is a much more serious problem than mat because of the adverse effects it has on the environment of plant growth.

Thatch accumulation is the result of heavy clippings, a matted surface condition that deprives the lower leaves of light and air causing them to die, and slow decay of the dead plant parts. As the thatch builds up it becomes an ideal medium for harboring insects and disease and creates a serious problem of water and fertilizer penetration. Partially decomposed organic matter has a high water absorptive capacity and a dense layer will resist movement of water through it and hold excess water near the surface. This condition contributes to disease activity, germination of weeds and shortened root systems. In contrast, when thatch becomes dry it is difficult to re-wet and sheds water easily, causing localized dry spots to form.

A heavy thatch layer also reduces the effectiveness of fungicides and insecticides. More water is needed to flush them through the organic layer and they can be diluted to the point of losing their toxic effect.

Fortunately, a matted condition is easier controlled than a thatch condition. It can usually be done without much damage to the turf. Vertical mowing is probably the most effective means. This will cut through the tangle of prostrate stems and leaves and will remove much of the excess plant material. This should be combined with closer mowing and brushing or raking for total control of mat.

Thatch, however, is much more difficult to remove. Mechanical removal cannot be done effectively without removing some of the living material. If done too severely it can result in drastically injured and killed plants. A heavy thatch layer will take longer to reduce. Usually no more than 50% of the thatch layer should be removed yearly. As is the case with mat, thatch can be reduced by vertical mowing and brushing. To this, aeration can be added as an effective means.

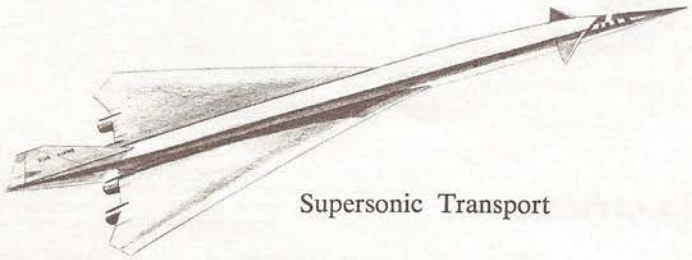
Topdressing and liming can essentially be considered as biological means of thatch control. Both improve the conditions needed for the growth of microorganisms that break down thatch.

Microorganisms make their best growth at pH levels near neutral (7.0). If soil pH is much lower than 5.5 it will retard their growth, thus slowing decay of thatch. Frequently soil pH is high but decomposition is still slow. This can occur because decomposition of organic matter results in acidic conditions, and although the soil pH may be quite high the pH level in the thatch layer could be low enough to slow decay. Therefore, periodic liming is beneficial in thatch reduction.

Topdressing combined with aeration is an effective tool in prevention and elimination of thatch. A heavy topdressing without aeration can cause a layering of organic matter, creating more difficulty. However, by aerating first you permit the topdressing material to be worked down into contact with the underlying soil. This will also overcome the tendency of the buried thatch layer to impede the movement of water, thus improving conditions for microorganism growth.

In many instances it has been noted that soil brought into contact with organic matter accumulations speeds the decay of that material. This soil usually contains the nutrients needed by the soil organisms to make their most optimum growth.

With the management practices of today, mat and thatch control is becoming a yearly operation. Higher use of nitrogen and water, and the introduction of faster growing turf specie all speed the accumulation of organic matter. Regular programs of vertical mowing, aeration, topdressing and liming will do much in preventing and eliminating mat and thatch.



Supersonic Transport

"It's not enough to win yesterday's battles. There are new forces at work we must be ready to contend with. The sonic boom, in my judgment, is one of the most serious ones . . . you cannot make out a case against the sonic boom by damage to the frail historic places nor, probably damage to wildlife. But you can make out a case in terms of damage to man's habitat . . . "

Stewart L. Udall

## HOUSE LOTS & NOISY STREETS

There are several ways of mitigating the noise nuisance, says Dr. Robert B. Newman of Bolt, Beranek, and Newman, the country's leading research and consultant firm in acoustics.

Q. Will it help to plant a barrier of trees and shrubs between the house and street?

A. Not at all as far as *sound* is concerned. Of course, if your house is separated from the highway by 500 to 1000 feet of thick deciduous woods, you will get more traffic noise in the winter when the leaves are gone, but this isn't a typical city or suburban situation. A barrier to keep out sound must be bulky and solid like an earth embankment or even a tall apartment house — trees won't do.

However, there's a lot of psychology in how we react to noise so trees, shrubs, and fences do have a function. They act as a visual barrier — out of sight, out of mind.

Q. Can an existing house be soundproofed?

A. Double windows on the street side will keep out some street noise; carpets, draperies, and acoustic tile will subdue the reverberations inside. The open layout of much modern architecture is an enemy of quiet in itself. The front rooms of a house on a noisy street should be segregated from the back with solid doors and floor-to-ceiling partitions, and then the back at least will be quiet.

It sometimes helps to provide a constant subdued background sound like a quiet fan, air-conditioner, or soft music which will mask out the annoying noises. But as with perfume, the masking technique has its limits — up to about 35 decibels which is still barely noticeable.

Q. The outdoor living area should obviously be located behind the house, away from the street. But should it be put near the house or at the far end of the lot?

A. Near the house. Sound barriers do a better job either close to the source or close to the hearer than halfway between. It takes more distance than most people realize for sound to fade away. And when the noise comes from a constant line of moving traffic instead of a single source, it takes a greater distance for the sound to drop as much. This is one reason why people living in the country are bothered by night-time traffic on highways miles away. Another reason is that natural country sounds are too low to do any masking, say 20 decibels even when the crickets are singing.

Q. Can anything be done to mask sounds outdoors?

A. Try two or three little fountains or an artificial waterfall. The sound of running water is an ideal masking noise. It is continuous and unobstrusive, it carries no information, and it has pleasant associations for almost everyone.

## SONIC BOOMS

With sonic booms the worst is yet to come. When — and if — Boeing's supersonic transports (SST's) crisscross the country, millions of Americans every day will jump with alarm, feel the house shake, and hear the windows rattle. From time to time they will watch plaster crack and fall and will sweep up shattered glass. And this is the *least* in the way of annoyance and property damage that we can expect from the SST.

Any plane flying faster than the speed of sound trails behind it the cone of noise pollution called the sonic boom. Although the bangs only last a fraction of a second, they usually come in pairs and are as loud as a medium-sized explosion in the next block.

A few years ago the U. S. government decided to find out exactly how annoying they are. Every day for five months Oklahoma City was jarred with eight sonic booms a day, none of high intensity and never at night. A poll taken after the test was over showed that the bang startled, disturbed, and annoyed almost everyone living within eight miles of the center line of the boom path.

Property damage is caused by the sudden change in air pressure that accompanies the boom. Two booms a week for a few weeks from the Air Force's new twin-jet spy plane over Los Angeles drew 564 damage claims, mostly for window and plaster damage. Jury awards have been as high as $10,000 (for an Oklahoma City house which was virtually split in two by the sonic boom tests).

Protest groups like The Citizens League Against the Sonic Boom (11 Appleton St., Cambridge, Mass.) are being organized here and there but on the whole Americans take the boom nuisance more meekly than Europeans. Sweden and other countries are considering forbidding *any* supersonic flights over their territory. The British flood their newspapers with angry protests. The French have been especially successful in getting cash settlements. In 1965 the French authorities paid more than a quarter of a million dollars for boom damages and immediately tightened flight rules, even to banning all supersonic flights over metropolitan areas. Yet one year later the number of damage claims almost doubled and settlements for the single area around the base of a new supersonic bomber approached $400,000.

Today's supersonic planes are all military. The first SST's, the Anglo-French Concorde and the Russian TU-144, are expected to begin delivering cargoes as well as booms in 1971. The Boeing 2707 is scheduled for a few years later. A law of physics says, the bigger the plane, the bigger the boom. The Boeing SST will be longer and wider than a football field and by far the largest supersonic plane in existence. Even when it is flying at 65,000 feet it will produce on the ground a boom covering a belt twice as wide and almost twice as intense as the Oklahoma City booms.

But until the Boeing monster comes along, the place to write for damage claim forms is the U. S. Air Force.

*Editor — John J. Barry, Supt. Abenaqui Country Club, Rye, N. H.*

# New Hampshire Golf Course Superintendents Association, Inc.

## NEXT MEETING

Well, it's about that time of the year again to break out the golf clubs and head for the golf course. Our first visit will be to the Portsmouth Country Club in Greenland, New Hampshire, on Wednesday, May 7. Better bring along a cannon for this trip, for host Superintendent Bill Barrett has a long and beautiful layout.

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| Next Meeting | May 7 |
| Directors' Meeting | 10:00 a. m. |
| Regular Meeting | 11:00 a. m. |
| Dinner | 12:15 p. m. |

Don't forget now, the meetings are held the first *Wednesday* of each month.

## Applications To Be Voted On

Earl Gilson, Superintendent of the Tyngsboro Country Club, in Tyngsboro, Massachusetts has made application for a regular membership. Earl will be voted on in May.

## APRIL'S EDUCATIONAL PROGRAM

David A. Clement, Superintendent of the Woodstock Country Club in Woodstock, Vermont gave an excellent talk, which coincided with slides, on the extensive drainage program undertaken by his club.

## THE PHILLIPS EXETER ACADEMY GROUNDS MAINTENANCE

Grounds maintenance of the school grounds at The Phillips Exeter Academy is a varied assortment of jobs, not all of which involve the growing of turf, shrubs and trees.

We have a ground crew of 16 men with a foreman and one lead man. The crew is divided into two sections; one section maintaining the playing fields in spring, summer and fall and maintaining the hockey rinks and the cage which is used for indoor track in the winter. The remainder of the crew maintains the campus proper.

The work involved on the campus on a daily basis is: a daily rubbish collection of all dormitories, dining halls and faculty houses, mowing lawns, pruning shrubbery, fertilizing lawns, shrubs and trees and sweeping walks and roadways.

With all the trees on the campus we have tried to speed up leaf removal with air brooms. We windrow leaves along the paths and into areas where a giant vac is used to load into a truck. The vac is front mounted and leaves are vacuumed into a large box which we constructed to slide into the truck body.

All of our tree maintenance is let out to a local contractor. This includes spraying, tree removal, removal of all dead limbs and fertilizing every third year. We have found this works to our advantage because of the special equipment needed such as: bucket trucks, stump chippers and spray rigs, also men that are trained to work in trees which gives us a more professional job. We usually go over the entire grounds at least twice a year with a representative of the company and decide on the work to be done in the coming year, then he sets up his own schedule. In case of emergency such as storms, he usually will send a crew to the school within a few hours.

Winter work on campus on a daily basis consists of snow plowing, sanding of all roads and parking lots. Plowing is done with two trucks, a 2-ton stake and a 1½ ton stake and two tractors with snow buckets. All paths and drives are done with tractors; roadways and parking lots are done by trucks. We have not used outside help for three years and have had all roads, parking lots and major paths open for classes each day.

During the summer months we have 400 to 500 students as against 800 plus for the regular school year. In June we hire about eight students for summer work and these are absorbed into the regular crew and work schedule mowing lawns, etc.

In addition to daily routine ground work we supply a labor pool for the Academy maintenance force laying drainage pipe, steam lines, grading and building lawns in new construction areas and planting shrubs and trees.

Due to major construction on school grounds in the past few years we have had to curtail ground care in some areas because of truck traffic, construction storage, etc. Nine houses were moved last year to make room for new athletic facilities and two new dorms. We are now in the process of installing drives, building lawns and landscaping these relocated houses.

Our playing field crews maintain 22 different athletic fields on approximately 47 acres of turf. We need this large area because of our extensive sports program as all students are compelled to take part in sports, playing either on varsity or club teams. The sports program takes place every day except Wednesday with varsity and J.V. games played on Saturday.

We mark all fields with two small power spray rigs using a water base paint. This is one of the many labor saving pieces of equipment now being manufactured.

Two years ago we built four new playing fields on 11 acres with the guidance of soil conservation people in the county. Eleven acres were cleared and a drainage system installed. Irrigation was installed in this field and is a start on what we hope to be general irrigation of all fields. We are fortunate to have a good supply of water flowing through the playing fields area.

One of our major problems in the past has been the heavy abuse to these fields from certain sports such as soccer and lacrosse where most play is concentrated in one area. We hope to be able to rest at least two fields each year for reseeding or turfing to try and maintain a better quality turf or playing surface. Communications and the cooperation of the Athletic Department is fairly good in this respect.

We also have about 450 acres of woodland in which we maintain fire roads, do thinning of hardwoods, etc. We have not been able to devote the time we would like to this area, but last fall we had some help from studetns.

Plans for this area to be used as a wild life area are now being worked on and we hope to be able to build several fire ponds this year.

We have one full time mechanic working to maintain 34 vehicles plus all grounds equipment. He has on of the ground crew as a helper most of the year. Any job of major scope is sent out. We have found that preventive maintenance saves down time on equipment. We just don't have time for major jobs. We have found that parts and repair service on equipment is very important. Most of the firms we deal with give us excellent service in this respect.

We have found with the scarcity of labor and the increase of services and workload in the Grounds Department we have had to become more and more mechanized. The general trend from our experience seems to indicate this is prevalent in all related fields dealing with outside work. It seems that a general upgrading of our field of work is taking place now. More organizations, seminars and manufacturers' workshops indicate manufacturers' interest in our problems. Better communications with those controlling our budgets and the means of making our needs known to them, in my estimation, is as important as the proper fertilizer to use.

*William D. Cross, Supt. of Buildings and Grounds*

# Maine Golf Course Superintendents Association

*Editor — Norman Pease, Purpoodock Club, Cape Elizabeth, Maine*

The Maine Golf Course Superintendent Association wishes to thank Vaughn Holyoke and the University of Maine for the excellent program presented at the Maine Winter Turf Conference. The two-day meeting held at the Steer House Inn in South Portland was interesting and informative.

With as many golf courses as there are in the State of Maine it is discouraging to see so few superintendents at these fine turf conferences.

There is a great amount of knowledge to be obtained at these conferences and clubs should realize that any education their superintendent receives will benefit them. For this reason alone clubs should be more than willing to pay the superintendent's expenses.

Some superintendents in this state should realize that they do not know all there is to know about the business and could also benefit from the conference.

## NEXT MEETING

The next meeting will be May 6 at the Willowdale Golf Club, Scarborough, Maine. The meeting will start at 11 A. M. The Host Superintendent will be Fred Nanny the owner-superintendent.

The annual meeting of the Maine Golf Course Superintendents Association was held at the Steer House Inn in South Portland at the close of the first day of the Maine Winter Turf Conference.

Amendments to the by-laws were voted on and approved. From now on the annual meeting will take place at the regular December meeting. A President, Vice-President, Secretary-Treasurer, and four directors will be elected. The directors will take the place of the present area vice-presidents. Association dues will, starting next year, be due in January.

Election of officers was held and the following were elected:

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| President | Lloyd Ruby, Portland C. C. |
| Secretary-Treasurer | Ernest Hawker, Gorham C. C. |
| Southern Vice President | Norman Pease, Purpoodock Club |
| Central Vice President | James Diorio, Augusta C. C. |
| Northern Vice President | Harvey LaMontagne, Rockland C. C. |

We all wish to thank John Davis, outgoing president, for the very fine job he has done over the last two years.

New Members

Albert Cameron, Houlton Community Golf Course, Houlton
Dick Dennison, Pinewood Golf & Beach Club, East Holden
Lawrence Peterson, Woodland Terrace, Brewer

*Definition of Desiccation* in the USGA dictionary of Turf Grass Terms: *Desiccation* — drying up.
Definition in the *Weather Glossary*, U. S. Weather Bureau of *Dessication* is: n, — The process by which a region suffers a complete loss of its water, due to decrease of rainfall, increase of evaporation, or to changes in other climatic controls. Desiccation is manifested by the drying up of streams and lakes, the destruction of vegetation, the loss of surface soil, etc.

L to r: Ernest Hawkes, Gorham C. C., Secretary-Treasurer; John Davis, Riverside M. G. C., Retiring President; Lloyd Ruby, Portland C. C., President; Norman Pease, Purpoodock Club, Vice President, Southern Section; Harvey LaMontagne, Jr., Rockland G. C., Vice President, Northern Section.

## Removing Snow from Greens

*Roger Lowell, Supt. Dutch Elm Golf Club, Biddeford, Maine*

There is much controversy on this subject. One cannot say if it's a good practice to remove or not to. It depends on many factors. When there is snow on the green, with or without a small underlayer of snow ice, and good surface drainage, there is really no point in spending the money to remove the snow. Besides, snow cover in March can prevent desiccation. However, a layer of block ice under snow or without should be melted with one of the safe products on the market, even in January.

The green with poor surface drainage should be cleaned of snow in late winter to prevent the melting of snow turning to an ice situation. Measures should be taken to prevent desiccation in the month of March.

## Snowmobiles on the Golf Course

This is one of the fastest growing winter sports today. No doubt many clubs have members who own a snowmobile and would like nothing better than to use his or her machine on the golf course. Some clubs gain extra revenues by owning a fleet of them. The reason why a snowmobile is on a course is one thing, but they should be supervised to stay off greens, and away from small trees and shrubs.

There are many clubs in the more northern part of the country that have no winter staff at all. Spring arrives with a torn up golf course, as a result of no supervision, and some poor superintendent has to repair the damage to obtain a well-groomed golf course that the members expect.

Snowmobiles can cause severe damage on greens. I have seen it in Maine.

## THE SUCCESSFUL FAILURE

Confused by the title? Don't be. In a sense, this is how Chet Sawtelle describes himself. "When I took over the administrative operations of the Sawtelle Brothers company four years ago", Chet chimes, "I wanted to keep it like it was — a small, folksy-type of business. Well, we've doubled our sales in that time. I don't know whether you'd say I succeeded or failed."

It is this kind of down-to-earth philosophy which sets Chet Sawtelle apart from the crowd. This and his accomplishments. Of the latter, he blushes through interrogation. He'd rather talk about his grandpop, Charlie C. Worthington . . . the industrialist who stood tall in the mower-tractor corridors and helped found the Professional Golfers Association. He has all the tribute in the world for his late brother, Ross, whom he succeeded as the office force in the company. And he can go on for hours on the exploits of his father-in-law . . . the famed yachtsman-designer, John Alden.

Oh, he displays a trace of satisfaction when he's grilled on that renowned political feat he stung the unsuspecting populace of Marblehead with when he became the second non-native in history to win the post of selectman there. "In fact", he joshes, "I'm still considered to be a foreigner there after 27 years."

That certainly was a chest-swelling accomplishment, winning the election. "I remember when I wanted to take out a political ad in the local paper", Chet laughs. "The feller there says he'd take my ten dollars to print it . . . then added that I'd never make it in a million years."

This is the Chet Sawtelle who can captivate an audience of one or one thousand. He claims to be the serious-minded of the family. But there's an impish sparkle in his eye whenever he tells a story. "Sure, I own a Rolls Royce", he tells. "And you should have seen the look on the face of the salesman when I said I was going to use it to deliver lawn mowers."

**Chet Sawtelle, L is talking with Gerry Finn, R, contributing editor of the Newsletter.**

What makes Chet tick? How come his business bursts forward when he says he's taking the reins to her? "I love it", he admits. Golf is a wonderful game, its people warm and interesting. And there's my associates. Frank Moran, Joe McKoan and my nephew, another Chet Sawtelle. Actually, they're doing all the work. I'm just taking the bows."

Sawtelle Brothers just didn't happen. Chet, a depression graduate of Union College, joined the Worthington Company — forerunners of the Jacobsen Company — as a ten dollar-a-week floorsweeper. "I majored in history at Union", Chet smirks "Where else would you expect a history major to start in the mower-tractor business?"

From there Chet and Ross eventually left the production aspect with the sale of Worthington to Jacobsen. They formed their distribution outfit and made it a two-man whirlwind to prominence.

Chet bursts more buttons about his civic contributions. You name the organization on the North Shore of Boston and if it has any worth in furthering moral and social ideals, Chet has been an integral part of that movement.

The man is especially fond of the men who work for him. "I know it looks as though I raided the superintendents' lair for most of my golf people", Chet pleads. "But it was a combination of events which brought boys like Floyd Wiget, Ray Sheehan, Tim O'Connell and George Sheehan into my employ. We are a very happy family, you know."

Chet's interests these days center on those civic associations. Recently, he was presented with the Youth Service Award in Marblehead. "I am most proud of this honor", he concedes. "It seems I am at my happiest when I'm doing something for someone else."

As for playing golf, Chet has nothing against it. "I just don't have the time for it", he sings in that charming Boston accent. "I used to play. But when I broke 100, I quit."

Retirement ahead? "Not that I can see", Chet comments. "I'm looking forward to all my tomorrows and as far as I'm concerned, they will be working tomorrows. I love this life."

Not a bad life, either, for a failure . . . wouldn't you say?

— Gerry Finn

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Water applied in bulk from tank trucks, or other means that permit the application of a larger gallonage, at open periods during the winter and early spring often greatly reduce the severity of desiccation. An application of between 100 and 150 gallons per 1,000 square feet should be sufficient to reduce the moisture stress. Watering can be particularly important in the spring where there has been a considerable reduction in root surface from thrusting as a result of the freezing and thawing action on the soil. Again this problem is normally solved by natural rainfall; however, we must be ready to step in when shortages exist.

*Snow Removal*

Snow and ice cover on greens over the winter do not present any immediate problems but actually provide protection to the turf against desiccation. As spring approaches and the grasses are beginning to show some activity, holes can be broken through the ice to enable air circulation. The use of dark materials such as topdressing and natural organic fertilizers, that also absorb heat, are also effective in melting ice sheets. Prolonged coverage by ice at this time could result in a depletion of oxygen and accumulation of carbon dioxide which could asphyxiate the grass plants. The other school of thought is that the direct action of the cold temperature around the crown is responsible for the death of the plant. However, caution should be used in removing an ice sheet as the grass, which was under a sheltered situation, may be severely set back if the weather takes a change for the worse.

*Varietal Tolerance Varies*

There is a wide variance in cold hardiness between grasses and grass varieties which should be taken into account at the time of initial turf establishment. The more tolerant varieties should be used in those areas that have a history of past turf injury. Sufficient time should be allowed for establishment of a fall seeding. New shallow root seedlings fall easy prey to thrusting action of the freezes and thaws of winter.

*Traffic*

One of the most damaging and most difficult factors to control is traffic on frosted, semi-dormant or dormant turf. Damage can be minimized in the first condition by lightly watering to remove the frost before play begins. In the latter two cases the situation is much more critical. Traffic on dormant or semi-dormant turf at a time when the leaf blades, crowns and roots are easily injured and no regeneration is taking place consequently will result in a drastic thinning of the turf stand. Traffic on soil that is partially thawed or wet is also extremely destructive. The most obvious effects are the visible footprints on ruts, but the most serious is the compaction which in a short period of time will negate all the previous labors of a management program designed to improve soil structure. The diversion of traffic to alternate or temporary winter greens during unfavorable periods is one alternative.

With study, good management, a little help from Mother Nature and a prayer, chances are good that a green spring *is* possible!

NEWSLETTER

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