PRESIDENT'S MESSAGE

There is no doubt, that this is our busiest season of the year, in a matter of a few weeks you will initiate many programs such as aerifying, fertilizing, topdressing, spraying and mowing to get your sportsturf areas ready to survive a season of use.

Your executive committees have been working many extra hours completing their association work during this busy season. Peter and Chris have arranged the speakers, location and exhibitors for our upcoming June Field Day. It looks like again we will have another informative day. The newsletter has been revamped and looks excellent. Bill has put together an operational budget for the Association. This will be extremely important for the planning of our association's future projects. Lastly, Geoff has been doing the preparation work for our upcoming December Conference in Guelph, Ontario.

I have been busy representing our association at many meetings. I have attended several Green Care Ontario meetings. This association is trying to deal with the Ministry of Environment on their new pesticide spraying posting regulation. This amendment is going to greatly inconvenience any users of your sportsturf. Please take time to read the G.C.O. update insert. This matter is a long way from being solved.

Lastly, we will have the position of the Association's Executive Secretary filled by this summer and operating by this fall.

See you at the June Field Day.

Bruce Calhoun
Editorial

We would like to get more information from School Boards as to their maintenance practices. Many we hear from do very little maintenance because the money is not there, or their fields are maintained and used by the local parks department. Still others, contract out the work. We feel young people participating in school sports deserve better. In their guidelines, the Ontario Physical Health and Education Association instructs people as to how their helmet or padding should be worn, but does not include field inspections prior to use of the turf facility. Surely it is time we placed more emphasis on these areas, as it is part of education.

On a different note, in conversation with Bill Campbell of Fairlawn Sod, he indicated that he was sure that many sod producers would consider special mixes for sports fields. If there was a need, they could scalp and overseed, and probably grow in approximately nine months. He would grow on coarse sand which could then be put on a sand based field.

At the University of Guelph, we have just finished reseeding our hockey field and on the advice of turf experts, used a 50/50 mix of perennial rye and Kentucky bluegrass. The mix consists of 25% Welcome and 25% Harmony Kentucky bluegrass. Then 25% each of Pennant and SR 4100 perennial ryegrass. This was seeded on the parent soil on an irrigated field. We feel this will give a field with high wear tolerance. Town of Oakville (article later) is having good success using Rebel II Tall fescue. It stays green all summer, is drought resistant, has low fertility requirements and will grow on most soils — ideal on fields with no irrigation. Belhaven Sod Farms Ltd., produces a

Continued on page 7

Renovations & Maintenance at
University of Western Ontario

December 1989 — Conference Proceedings

The grounds are responsible for the maintenance of 300 acres of fine turf plus 30 acres of sports turf. I watch our fields used for track & field meets, classes, intermural events, intercollegiate games and practices and anything else deemed possible.

We have one football stadium, a football practice field, rugby, two soccer fields, field hockey and four baseball diamonds, all with natural drainage.

Prior to renovation and maintenance, our practice fields were extremely poor. Attempts to commit labour and materials fell on deaf ears. We knew if we could get supplies, these fields would have a turf comparable to our stadium.

We wanted to renovate, but were unable to get on the field, as it was booked solid until mid-June. We sprayed the area with Roundup at this time, confident of still obtaining good results. We expected to work on the field in ten days, only to find it was booked for an army demonstration on the long weekend of July! We ripped up the soil to a depth of 12" to help breakup the heavily compacted soil, then rough and fine graded the area and filled in the low areas. We broadcast a starter fertilizer 0-20-10, then turf type perennial rye at a rate of 81 lbs./1,000 sq. ft. Lastly, we hired a contractor to hydromulch the area to conserve moisture. We watered early morning and late afternoon from a nearby river. Initially down 1/2", and after germination, deeper. The seed germinated in five days and the next week we made our first cut at 2", then twice weekly. We then applied 10-6-4 SCU and even after watering, experienced burning, perhaps due to the high humidity at the time. August 16th, we had a good turf surface, which was used for our first intercollegiate practice.

Response from coaches, players and upper management, who had all watched our progress, was only positive. The field, no longer a knotweed infested battleground, remained in good condition 6-8 weeks longer than the former mud patch.

Confident from these results, we started our '89 program with a soil test in late October 1988. Then applied 10-6-4 at 1/2 lb./1,000 sq. ft. Soil test results indicated a phosphorus deficiency but pH within ideal area. We decided to apply twice, once at planting time and one mid-June. Then all fields were reserved first and second weeks of May and we aerated them in three different directions and drag matted the cores and the first application of 0-20-10 which was applied at 1/2 lb./1,000 sq. ft. Next was seeding using an overseeder and turf type perennial rye at 5 lbs./1,000 sq. ft in two different directions. Following overseeding another 150 lbs. of seed was broadcast to place seed between the rows planted with the overseeder. Drag matting after this gave us better seed to soil contact. Germination was good, but the knotweed persisted even though weed killer was applied. After using wetting agents, on our main stadium, we tried more on this area on a rainy July day to get more penetration. While I was on vacation for two weeks, 10-6-4 SCU was applied and also a weed killer. On my return, I found a terrible stand of turf and no knotweed. I was told that one man looked after all the irrigation and cutting of these areas.

Our program consisted of twice weekly cutting at 21/2" until late June, then raising 3" until September, then back down to 21/2". Quite often we would have to vacuum clippings because of the fast growth.

Jim Galbraith, Supervisor
The success of professional lawn care across the country indicates that technical expertise is available for application to sports turf management. And, there is no question about the need to improve the safety of playing surfaces, particularly for young athletes just getting started. Often school boards and municipal recreation leaders fail to improve sports turf quality because of not knowing where to start.

This article is intended to provide you with some insight regarding sports turf maintenance problems and related technology for solving these problems. In order to know what we’re dealing with, it’s necessary to discuss use characteristics of sports turf before considering five management areas of critical importance: soils, irrigation, grasses, pest control and grooming.

Use Characteristics

Of all turfgrass, sports turf is presented with the most difficult and stressful conditions for growth. First of all, game play causes wear that is physically abusive to turfgrass plants. They are cut and torn from the sod as a natural consequence of foot traffic and player impact. Second, game play causes soil compaction that weakens grass roots and limits recuperative potential of individual plants. Third, game schedules and field use are such that the recovery time needed for turf revitalization is severely limited. Field renovation must be looked at as a continuing practice throughout the entire play period, thus taking advantage of any and every opportunity to make repairs and to improve growth conditions for the grass. In addition, it is not always easy to identify who the decision makers are. Time wasted in obtaining approval for essential maintenance and renovation practices is time lost that can never be replaced. The net result is lost opportunity and generally a continuation of turf deterioration at a time when the safety of young athletes may well be in jeopardy. Sports turf and playground liability is becoming more and more a fact of life as technical information for field improvement becomes more readily available. There is no longer excuse for negligence in the culture of natural grass for sports playing surfaces.

Further, a wide range of cultural practices can be scheduled for field improvement. Costs will vary considerably from location to location and depending on the nature of the work to be accomplished. However, economics of sports turf construction, maintenance and renovation is more favourable than the economics of compensation for injuries to young athletes.

Finally, before attempting to make a poor field better, determine if in fact there is a good chance that you can be successful. Many fields are so intensively used that there is little chance for grass or even weeds to survive. Such fields are losing propositions at best and may involve you in legal settlements when positive results are not obtained. In these instances, either a lessening of the number of events scheduled or an expansion of play field acreage is required.

Now that you’ve considered the unique use characteristics of sports turf and have determined who the sports turf decision makers are, it’s time to check on how soils, irrigation, grasses, pest control and grooming can work to enhance your successful sports grounds management.

Soils

Soil condition on sports fields can make or break you. In order for grasses to grow well, soil must be graded so that surface drainage moves water away from intensive play areas towards the side lines. Water that collects in depressions anywhere on a field will weaken grass in that area and ultimately result in turf failure. From 12 to 18 inches of crown in the center of a football field is about right. For other types of play areas, an equivalent slope is desirable for movement of excess surface water.

Then, the soil must have a sufficiently porous texture to allow water to drain down through the profile. A good sandy loam soil is ideal. Unfortunately, it’s not a simple matter to add sand to a heavy or fine textured soil and make it function like a natural sandy loam. Tons of sand are required and the mixing with existing soil is labour intensive as several 3 to 4 inch layers must be rototilled in one at a time. The alternative is removal of existing soil and replacement with an artificial root zone mixture prepared off-site.

Heavy soils are often more effectively modified with organic matter than with sand. Once turf is established on these soils, the continuation of root growth and decomposition year in and year out helps to maintain as favourable soil conditions as are possible. Any cause of turf failure disrupts this process and reestablishment is generally difficult.

A word about topdressing. Sports turf is in need of frequent topdressing to level the field and heal scars from heavy use. Always use a topdressing that is the same as that in the rootzone or one that is more sandy. Never use a topdressing that has more silt and clay than is present in the rootzone soil. Water will move from a more sandy soil with large pore spaces into a less sandy soil with smaller pore spaces, but it will not move readily from a heavier
finer textured soil into a lighter coarse textured soil. Improperly topdressed lawns and sports fields are wet near the surface and shallow rooted. These conditions are disastrous for playing field surfaces.

Since use of play fields compacts the soil so that pore spaces are smaller and internal drainage of water slowed along with exchange of fresh air into the soil, core cultivation, slicing and spiking are desirable practices. Schedule these mechanical operations whenever growth conditions favor root development [cool, moist conditions in the north and warm, moist conditions in the south]. Use all three procedures. Core cultivation opens up holes and removes plugs; these may be broken up and returned as topdressing. Slicing develops slits or grooves in the turf and soil that intercept water and allow for deeper penetration of air and water. Spiking breaks up surface compaction that otherwise seals off the soil and slows down infiltration of water, air and nutrients. Generally, it is difficult to find time to overdo these three practices. The soil is a dynamic living entity that provides support, moisture and nutrients for the turf. In order to get the most from the soil at hand, know both physical and chemical properties. Maintain soil test information files and use this information in prescribing lime and fertilization applications. Not only is it important to make growth conditions favorable for turfgrasses, but also for billions of soil organisms that live within the rootzone and work to create an environment that has active biodegradation properties. Such soils are necessary in the safe and effective use of all pesticides.

Up to this point, we have assumed that the field has been well constructed with suitable soil or sand rootzone and that drainage tile have been placed properly with catch basins and outlets that remove excess water at acceptable rates. This may not be the case, and if so, there is little that can be done in field maintenance that will overcome the liabilities of poor or inadequate construction. Your field management efforts are not likely to yield satisfactory results. However, one renovation practice sometimes helps. Try constructing narrow trenches 3 to 4 inches wide and 3 to 4 feet deep from goal line to goal line. Position these from 5 to 10 feet apart and connect the ends with tile lines along the bottom so that drainage water is carried away from the play area. Fill the trenches with coarse sand and leave them open at the top. Grass will spread over the sand so that it will not be visible. Do not add soil to the top of the trenches; this will seal them off so they will not function.

Irrigation

Sports turf that must rely on natural rainfall for water is likely to be poor in quality most of the time. Sports turf that is over-watered because of the improper use of an excellent irrigation system will be poor in quality all of the time. Needed for excellent quality sports turf is a well designed manual or automatic system that is used as needed and as determined by an experienced lawn care professional. Many sports fields have limited prospects for improvement because of the lack of irrigation water. Fertilizers, pest control chemicals and other cultural practices have little chance of working if water is the limiting factor. The use of just enough water at the proper time will enhance the effectiveness of all other practices utilized in turf management.

Grasses

Sports turf can never be made better than the potential for excellence provided by the grass or grasses present in the field. In the north, the basic turfgrass should be either Kentucky bluegrass or turf type tall fescue. Use one or more of the new named varieties that feature improved vigour, and better resistance to diseases and insects. With Kentucky bluegrass, the new named varieties of fine fescue and perennial ryegrass may also be used. Generally turf type tall fescues are seeded by themselves without other grasses. Avoid use of bentgrasses that spread by above ground stolons and tend to tear out as large divots under heavy traffic.

In the south, bermudagrasses are used most for sports fields. New improved cultivars are propagated mostly by vegetative means. New improved seeded bermudagrasses are now under development and will be available within a year or two. Since all warm season grasses go dormant in the fall and remain in that state throughout the winter and early spring, they must be overseeded in the fall with cool season grasses in order to provide a good stable playing surface. Annual and perennial ryegrasses are used as well as blends of perennial ryegrasses and mixtures of perennial ryegrasses and other grasses.

Overseeding techniques have been standardized for use with both cool and warm season turf. Where turf is thin because of intensive use, pregerminated seed mixed with topdressing can be applied directly, watered and even cleated in by practice or game play. Any plants that can be established will improve playing conditions. Where large areas are thin, slit seeding with mechanical devices that enhance seed to soil contact are recommended.

For lawn care professionals the use of pregerminated seed is the most effective means for introducing the best turfgrasses into an existing stand of sports turf.

For copies of Lawn Institute Special Topic Sheets listing turfgrass best suited for sports turf in your location, send a self-addressed stamped number ten envelope to: The Lawn Institute, Post Office Box 108, Pleasant Hill, Tennessee 38578.
Pest Control

Sports turf, because of the stressful conditions under which it is grown, and the weakening effect of these conditions, requires frequent use of pesticides. Proper timing of treatments and use of most effective pesticides for local conditions is important.

The necessity for monitoring weed development and scheduling pre and postemergence applications of herbicides is a fact of life. Seldom are sports turf grasses sufficiently vigorous to crowd out weeds without the help of herbicides. The same chemical formulations that work well on local lawns will also be effective on sports turf.

Grooming

Sports turf requires mechanical mowing and grooming, not only to produce as healthy a turf as possible, but also to provide aesthetic appeal for spectators. Mowing height and frequency are determined by the type of grass and the use of the turf on the field. Cool season grasses are generally cut at from 1 1/2 to 2 inches. Warm season grasses are closer cut -- 3/4 to 1 inch. Grass should be cut frequently and clippings may be removed or left on the field, depending on how well the field is groomed.

In addition to mowing, fields may be combed, raked, dragged or thinned in order to maintain the degree of vigour and growth compatible with development of highest quality ground cover.

Summary

The lawn care professional has an excellent opportunity to be of service in the management of sports turf. This opportunity is perhaps better in some parts of the country than in others. An appreciation for the value of fine turf and its use in the enhancement of playground and sports field safety is important.

As an entry into this area of specialized turf management, get to know the condition of the grounds you are interested in. Learn who the decision makers are and what it will take to initiate a successful program. In doing this, use technical information available to you from a wide variety of sources. For a start, you may wish to obtain copies of the following materials:

Athletic Fields - Specification Outline, Construction and Maintenance; 30 pages; $1.50, Cooperative Extension Service, The Pennsylvania State University University Park, PA 16802

We Get Letters...

Dear Mike:

Would you please indicate the names of some magazines that might be useful to our members and how they may be obtained.

Jim Galbraith
University of Western Ontario

Dear Jim:

The following is a list of publications that usually have articles on Sports Turf. Most are free of charge. Thanks for the suggestions.

The Editor.

Southern Turf Management
345W Hancock Avenue
Athens, Georgia 30601
U.S.A.

Pro Turf Magazine
14111 Scottslawn Road
Marysville, Ohio 43041
U.S.A.

Grounds Maintenance
P.O. Box 12901
Overland Park, Kansas 66212
U.S.A.

Athletic Field Construction and Maintenance [AG-BU 3105] 16 pages; $1.00, Cooperative Extension Service, University of Minnesota, St. Paul, MN 55108

Construction and Maintenance of Natural Grass Athletic Fields; [PNW 0240]; 27 pages; $1.50, Cooperative Extension Service, Oregon State University, Corvallis, OR 97331

by Eliot C. Roberts
Director, The Lawn Institute
Pleasant Hill, Tennessee
and Executive Committee Member
National Sports Turf Council
NEWS RELEASE:

Gerry Hodges has joined Innovative Equipment Inc. as General/Marketing Manager. Presently, he is developing a marketing system and organization for the WINDFOIL Turfgrass Sprayers. The WINDFOIL’s uniqueness is its patented design that controls drift, thereby enhancing the safer use of chemicals, creating a safer environment, and a positive public image for the user and the industry. Mr. Hodges’ marketing will initially involve developing a dealer network in the South Eastern and Western United States, as well as Canada, where the need for an environmentally positive application system is greatly needed.

GREEN CARE ONTARIO UPDATE

It has been thirteen months since the Ministry of the Environment declared its intention to implement amendments to Regulation 751 of the Pesticide Act. It has been twelve months since representatives of numerous associations first met to discuss the possibility of a combined response. That ad hoc group has since developed into a fourteen member (and still growing) “association of associations.” The spirit of co-operation that has developed is most encouraging and bodes well for future success. Without a doubt, this type of organization has a significant role to play with its member associations, various government ministries public interest groups. Our industry has been collectively complacent about increasing public sympathy for the causes presented by groups such as “Friends of the Earth.” We shouldn’t be surprised by government action because the environmental activists have been working diligently for years to nurture a public opinion that demands it. Our silence on the issues has allowed this to occur, in fact, we’ve made their job rather easy.

Well GREEN CARE ONTARIO has, in its infancy, taken the first steps to bringing a voice of reason to the forefront. Our response to the proposed amendments was a responsible one. We endorsed the concept of the “public’s right to know” through posting. Our formal submission made specific recommendations that enhanced the governments intentions while making it a workable piece of legislation for industry. We were disappointed, to say the least, that our significant effort was all but ignored. This rather dramatically confirms the fact that we have a long way to go. This is not to suggest, however, that our time and expenditures to date have been wasted. We can hold up the contents of our formal submission as a shining example of industry’s willingness to address the issues. The profile of our industry is being elevated, important contacts are being made and I am certain that time will prove that we addressed the posting issue more responsibly than government.

But where does that leave you come June 2 when you will be expected to post signs that advise your golfers to “KEEP OFF.” GREEN CARE ONTARIO is producing two pamphlets to support you in your personal endeavours. The first is a handout that can be mailed to your golfers or distributed to players from the Pro Shop. It addresses the inevitable question, “What does this sign mean?”

It will be an envelope sized, one-page flyer printed on recycled paper, boasting the Green Care emblem. Under a sample of the actual sign will be the following copy:

The Ontario Ministry of the Environment has amended Regulation 751 of the Pesticide Act. It now states that licensed pesticide applicators must post these signs for 48 hours following a pesticide application, and in the case of public areas, for 24 hours prior to an application. For an explanation about the “KEEP OFF” directive, please contact a Ministry of the Environment official at one of the regional offices listed on the reverse.

It must be our position, to comply with the Pesticide Act and to treat the posting matter with utmost seriousness. You should be most cautious when answering questions about the signs and the matter of safety/risk. We recommend that you do not attempt to interpret the meaning of the sign for anyone. You might simply say that the government has made it mandatory to post the sign, that you are taking the necessary precautions to protect
your staff, golfers and the environment from undo risk and that people with concerns about the implications of the sign should follow the recommendations of the GCO handout. It is likely a good idea to prepare your staff, the pro shop staff, and other club officials as to the best way to handle inquiries. Copies of this article may be helpful.

The second handout will present the benefits of a healthy landscape in a manner that will be embraceable by the general public. We must emphasize the positive impact that our efforts have on the environment while presenting the facts about the products we use and the responsible way we use them. We've got a good story to tell, so let's tell it. You will receive notice from your association about these materials and how to order them when they are available.

With the involvement of every member of each member association, GREEN CARE ONTARIO can effect some influence. We will strive to make inroads with the legislators, but individuals must make use of the information that will be provided to begin to change public perceptions and ultimately, public opinion.

by Thom Charters

Editorial
Continued from Page 2

Sports turf sod using a mix of Rebel II Tall fescue and Elite Kentucky bluegrass.

Ken Turner, in Saskatchewan, indicates that there is sufficient interest and numbers to start a Western chapter of the Sports Turf Association. We look forward to hearing more from him.

I will be in England in June and will be visiting the Sports Turf Research Institute at Bingley, Yorkshire. I hope to share my impressions in a future newsletter.

Mike Bladon
FOURTH ANNUAL ATHLETIC TURF FIELD DAY

JUNE 20, 1990

KITCHENER AUDITORIUM, OTTAWA ST.

8:15 – 8:45 a.m. Registration
(late registration $45.00)

8:45 – 8:55 a.m. Mr. Bruce Calhoun
President, S.T.A.,
Opening Remarks

8:55 – 9:05 a.m. Mr. Fred Graham
Commissioner for Parks, Kitchener
Welcome

9:05 – 10:05 a.m. Judith Ferguson-Gockel
Topdressing

10:05 – 10:30 a.m. Coffee / Meet with distributors

10:30 – 10:45 a.m. Dr. Chris Hall — Guelph Turfgrass Institute
Update on Research 1990

10:45 – 12:00 noon Panel — Mr. Allan Downey, Town of Vaughan
Mr. Bob Reynolds, Landscape Planners Ltd.
Design/Construction of Athletic Fields

12:00 – 1:15 p.m. Lunch and Exhibits

1:15 – 2:05 p.m. Equipment Show and Exhibits
(One Piece Demo)

2:15 – 2:45 p.m. Dr. Rod Thibodeau, Lawyer
Litigation Suits for Athletic Fields

2:45 – 3:15 p.m. Judith Ferguson-Gockel
Parameters for Sports Fields

3:15 p.m. Coffee

WELCOME
NEW MEMBERS

Neil Chartrand
Leeds/Grenville City
Board of Education

Mr. Don Newcombe
York Region Board of Education

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