

12th Annual Field Day

MICHAEL BLADON

Cultural Practices for Weed Control

Dr. Chris Hall, a professor at the University of Guelph's Department of Environmental Biology and past Director of the Turfgrass Institute, was the next speaker on the program. Dr. Hall spoke on "Cultural Practices for Weed Control," and talked at length about changes in government thinking and philosophies as they relate to pesticides. Dr. Hall said that while there is not the same pressures for non-chemical weed control there were a few years ago, those same pressures will surface again. He suggested that we have to be pro-active in our dealings with pesticide issues.

First, Dr. Hall pointed out that maintenance is not a trivial task and it differs according to the sport or location. Soccer players want good footing, good ball bounce, and ball roll. Golf, on the other hand, is different. While golfers still require a good ball roll and playability, the course is very much a park-like setting. On highways—a completely different situation—grass performs functions such as cutting down on glare, and along with trees and shrubs, provides some noise reduction. It also helps prevent soil and wind erosion as well as slows runoff, has heat absorption qualities, and provides an area off the main thoroughfare for vehicles. No matter its use, grass recharges the ground water system and contributes to O₂ fixation and O₂ generation.

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Dr. Hall indicated that the key to good weed control is a dense healthy turf which is able to compete for light and temperature and suppress weed germination so they are slow to develop. Negative effects of weeds include poor turf—too much



competition—and increased labour and equipment costs. Furthermore, poor quality turf affords a place for insect and disease organisms to flourish and a haven for weeds which affect allergy sufferers.

Switching to non-chemical weed control, Dr. Hall talked about factors such as competition, the type of weed, turfgrass susceptibility, and cultural methods. For example: Is the area wet? and Does it suffer from salt damage? Some preventatives are proper seed bed preparation and elimination of seed production—many weeds are annuals and one mowing will remove the problem of seed production. Another venue is to exhaust the propagation organs. In the case of quack grass, stolons must be removed in their entirety by raking out or constant cultivation practices of bringing rhizomes to the surface to die. As for proper seeding with the correct species, consult with a turf specialist in your area. (The seeding rate and clean seed are discussed in the June 1999 issue of *Sports Turf Manager*, "The Seed Label," page 12.) The time of seeding is also important, particularly if you do not have irrigation—mid-August to mid-September is best. Dr. Hall then mentioned the advantages and disadvantages of species of Kentucky blue and perennial rye (see the table on the opposite page).

Dr. Hall ended with some final pointers on weed control:

- 1) Sod management—fertilizing, mowing, and watering. It is important that you survey for weeds and avoid scalping.
- 2) Mechanical weed control can be ac-

complished by mowing, tillage, and physical removal.

3) Non-chemical weed control begins with careful selection of species and cultivars. For example, Kentucky Bluegrass is less susceptible to weed invasion. Remember that cultivars of the same species will respond the same. Lastly, improving nitrogen reduces weed invasion in all species.

ORFA Training Opportunities and Partnerships

Next on the program was Jay Kivell. Jay is presently Manager of Parks and Facilities for the City of Guelph. His subject was Ontario Recreational Facilities Association (ORFA) training opportunities and partnerships. Jay heads up the annual professional development program for them. Member services consist of district meetings and the *Facility Forum*, a bi-monthly magazine (soon to be changing to quarterly). They have a facilities library located in Toronto where you may go to do research for newsletter articles, reports, etc. There is also a job search service in place. Regional training in aquatics programs is available for those who maintain pools. Safety training in propane management is also offered. Even if you operate a propane barbecue at work, a certificate is required. An ice making manual is available, plus log books and other texts. If you have a minimum of 30 people, ORFA will hold a propane course at your place of work at a cost of \$60 per person.

ORFA has formed 34 partnerships with organizations such as Algonquin College, Seneca College, the NHL, and several provincial government departments. Each year, training is run at the University of Guelph, in partnership with the Office of Open Learning, in Parks Operations, Parks



Management, and Sports Turf Management and Operations. A new course offering is for Certified Park Technicians. Algonquin College is currently providing a Trainers and Adults Certificate for anyone who is interested in teaching the above courses. Jay invited the Sports Turf Association to be both a partner of the OFRA and to supply some instructors.

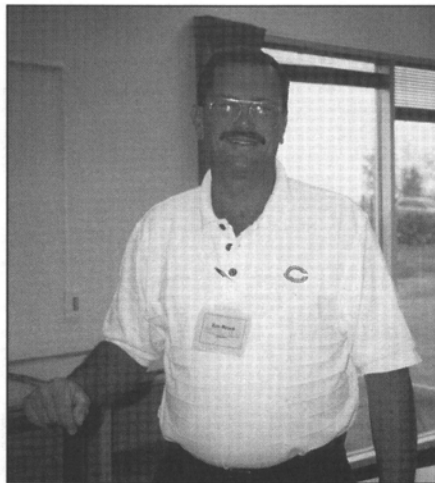
The Bear Facts

Ken Mrock, head groundskeeper for the Chicago Bears, gave both a humorous and informative talk on the difficulties of maintaining fields for football players. He has to contend with all kinds of weather while keeping in mind that many players weigh 300+ pounds and are worth US \$60,000,000 together as a team. Players today are bigger, faster, and stronger. Training camp begins with 90 players and is finally cut to 52. Ken looks forward to this because it means 38 less pairs of cleats chewing up his turf! His first slide showed the NFL logo which he said stands for "not for long" if you don't get the job done! In this business, a top job is expected, but appreciation is hard to come by.

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Ken then talked about a farm the Bear ownership bought to make a practice facility and to house their headquarters and training facilities. Five acres were zoned for a practice facility. The first step was to remove the topsoil. Then 4" drainage tile was laid 15' apart and filled with



pea gravel to keep out the clay. Next, a well 450-500' deep was drilled into the lake aquifer to make sure they always had water. They used a greens mix of 80% sand, 10% PROFILE, and 10% peat moss (this was mixed off site). He had used this same mix when involved with golf course work and it withstood a terrific amount of wear—they would play 60,000 rounds a year! He also found this type of mix had less disease, greater water holding capacity, and fostered a dense turf. Then, they blended 14,000 yards of the mix and spread it on 6" of pea gravel. Ken felt afterwards that they could have used less growing medium. They also installed a polypropylene pipe to check on O₂ emissions. Results of the tests indicated zero. Following this, on two of the five acres, they installed tubing to heat the soil. Initially, he had set up a small test area suggested by the manufacturer from which he learned a great deal. Ken used this information to avoid what could have been costly mistakes.

They used 14 miles of rubber tubing which was laid on 1' reinforcing rods tied every 15" for stabilization. There were six

Advantages

Perennial Rye

- Rapid germination
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- Excellent wear tolerance.
- No necrotic ring spot

Kentucky Blue

- Has rhizomes
- Competitive after establishment
- Disease resistant
- Winter hardy
- Low seeding rates

Disadvantages

Perennial Rye

- Variable winter hardiness
- Needs good drainage
- Requires higher seeding rates
- No stolons or rhizomes
- Difficult to mow.
- Susceptible to snow mould and dollar spot

Kentucky Blue

- Poor drought tolerance
- Thatch



stations where the heat was monitored. Starting in October, temperatures were kept at 55°F. Two boilers supplied heat from October to January 2nd. The supplier gave a 30 year guarantee on the tub-



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ing, and when tested, there was only one break, which they replaced. Tubing was filled with propylene/glycol and water to prevent freezing when the system was shut down. (After use in January, the temperature is lowered gradually.) Next, the medium was bridged out over the tubing to prevent damage and laser leveled. Ken then fine graded using a sand rake. He used a piece of Smithco equipment to dimple in the seed. Ken chose all Kentucky Bluegrass blends sown at 6 lbs per 1,000 square feet. The tubing was 8" down in the growing medium, so no problems arose with maintenance such as aeration.

Ken employs several ideas to reduce or change wear. He uses movable goal posts for kickers and puts in grid lines off the field for the linemen. Team practices are three hours, so he marks the fields enabling play to run in two different directions. Further, he talks to the coach to reduce potential communication problems. At Soldier Field, he pre-germinates seed in drums three days before a game, drains the drums on asphalt to let dry, and then spreads on the field prior to the game. Players' cleats then work the seed into the soil for good contact. After the game, he irrigates.

They also have an indoor practice field, erected at a cost of \$7 million, that has only been used four times. Cost of the entire facility to date is \$33 million. Finally, Ken mentioned that Soldier Field will be gutted and a new facility built. Everything will go except for the historical columns. The field itself will also be redone, with completion scheduled for September 2000. The new field will use big rolls of sod already ordered from the sod farm and will be grown on the growing medium mentioned earlier. Play, they hope, will be at either Notre Dame or Northwestern until completion.

Ken then fielded questions from the floor and also on the bus trip to the sod farm, so many more tips and ideas surfaced for the participants. It certainly was worthwhile to bring Ken to Canada again to share his considerable knowledge!

Trip to Compact Sod Farm

Prior to lunch, all suppliers were given a chance to introduce themselves and say something about the products they distribute. Following lunch, all delegates boarded

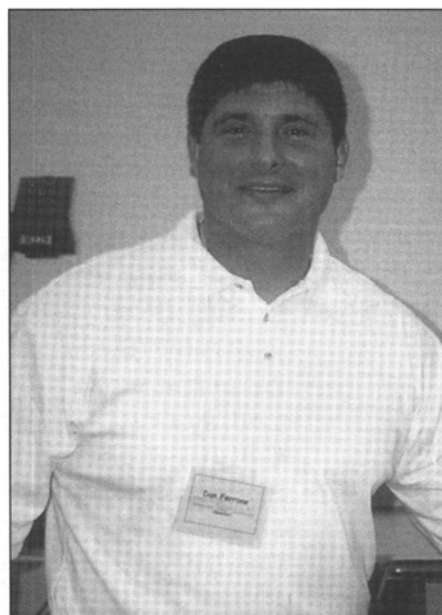


Top: George Bannerman (centre) explaining a new slicer/aerator his company has available.

Above: Ed Robertson of Toro (left) and Gord Dol, Dol Turf Restoration Services (right), displaying turf products:

Left: Keynote speaker Dan Ferrone, former captain of the Toronto Argonauts and current President of the CFL Players' Association.

Opposite page: Ron Schiedel, President of the Green Horizon's Group, welcomes participants to the Compact Sod Farm.



buses and cars to the Green Horizons Group of Farms Ltd., Compact Sod. Ron Schiedel, President, accompanied us and answered questions. At the farm, Ron explained the company business. They grow sod on 3,000 acres between Hamilton and Cambridge. The Green Horizons Group own 500 acres and the rest is leased under various agreements ranging from one to five or more years.

Green Horizons is a family business with a winter staff of 15-20 and approximately 50 seasonal employees. While their market is mostly to homeowners, they also grow corn and soybeans, sell grass seed, and blend their own fertilizers. Some of their sod is exported to New York and Michigan.

The basic operation employed by Green Horizons after a crop has been taken off is to spray with Roundup, plough, disc, rough and fine pick stones, and finally seed. They allow 24 months from seed to harvest and sell 1,000 acres a year which translates into 1 million rolls.

Mowing also is critical. Grass is cut three times a week by 10 staff members



who cut 100 acres per day. Grass is kept at a height of 2-1/2" except in summer when the cutting height is raised to 3". (Bentgrass is mowed at 3/8".) Last year they drilled a well down 450' in order to counteract previous droughts and used large travelling sprinklers which can water an acre at a time.

The company has 120 mowing reels,

15 large trucks, 5-6 smaller trucks for hauling sod, and all the allied farm equipment necessary. In winter, all equipment is refurbished. Bearings are replaced, reels sharpened, and MTC certification is performed on the trucks. The sod harvesters are overhauled.

To end, Ron shared one of the largest jobs he was involved with—removing top-

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The Schmeiser tiller and bedder used at Compact sod farms to cultivate and firm the land area prior to seeding.

soil that was in the way of a subdivision for the City of Cambridge. They used 300 triaxle trucks for two months to haul 5,000 metres of soil onto a 70 acre area and spread it one foot deep. He wanted to mix the clay soil with an existing sandy loam. Quite a project!

Sponsor and Exhibitor Demonstrations

After touring several farms to see various aspects of the sod operation, we listened to and viewed demonstrations by George Bannerman, Vanden Bussche Irrigation, Turf Care Products Canada, Dol Turf Restoration Ltd., and G.C. Duke Equipment. George Bannerman demonstrated a new piece of equipment called a Uni-drill, a slicer-aerator which looks very promising. Andrew Gaydon and his staff had an excellent working irrigation demonstration so delegates could see a complete system. He showed what can be expected from different nozzle sizes and the ease in which they can be interchanged depending on your requirements and water pressure. He also explained pop-ups and how they retract so they are safe on sports fields. He had a pressure gauge on the system and a small controller. It was an excellent hands-on display.

Ed Robertson of Turf Care gave us a run down on three different sized Toro mowing units, as well as introduced himself as one of their newer staff members. Gord Dol had a sample on the back of his truck of his newly acquired "Sportgrass"

(article in June 1999 STM). He has about 60,000 yards of it in stock and mentioned it is excellent for soccer goal mouths and bare centre field areas. Maintenance is the same as for most sports fields. Paul Turner demonstrated a weedkiller unit which uses boiling water. It is manufactured in New Zealand. He sprayed and indicated that the area would be dead in 24 hours. Finally he showed the two latest mowers on the market from Jacobsen with many safety attributes and helpful diagnostic features to aid the mechanic. The day ended with transportation back to the Guelph Turfgrass Institute.

Field Day Evaluation

Overall impression from all evaluations was positive. Topics participants would like to see addressed at future field days include: naturalization, problems and concerns of sports field maintenance at the municipal level, and more information on various seed plants. A number of participants suggested a tour of the University of Guelph campus including gardens, sports fields, and the arboretum. ♦



Mark your calendar now for OTS 2000, January 4-6 at the Regal Constellation Hotel, Toronto. Early bird registration details are on the following page.

Thank-You!

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Speaker Sponsorship

Ken Mrock, head groundskeeper for the Chicago Bears, was presented by PROFILE Products, LLC, Manufacturers of Turface, and PROFILE Soil Amendments & Plant Products Co. Ltd., Distributors.

The Sports Turf Association extends a sincere thank-you to all sponsors and exhibitors who assist in our mission of providing better, safer sports turf.