

# SPORTS TURF NEWSLETTER

September, 1987  
Volume I, No. 1

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## President's Message

First of all, a very sincere welcome to our new members. We will be sending information on the conference which is scheduled for March, and we will also be producing more newsletters. We thank you for your support of this fledgling organization.

We will be pleased to answer any queries you may have, information you may require, or any problems with your sports turf.

Annette Anderson, OMAF's Turf Extension Specialist has been working with the CGSA for an excellent first conference program. Dr. Clayton Switzer, Deputy Minister of Agriculture has already agreed to be our Keynote Speaker. James Watson, Vice President of Toro will also be in attendance.

Our board members have been working hard to get this fledgling association off the ground. Our secretary, Ron Dubyk is co-ordinating the production of the Newsletter. Bruce Calhoun is working on

a membership strategy, and Bob Allen as Treasurer is keeping after the Ministry of Tourism and Recreation to obtain some help to keep us moving and solvent. John Watson is assisting with conference arrangements. You can appreciate that starting an association is a BIG job, and I would like to take this opportunity to thank all of the board members for their hard work.

As summer draws to a close, the students have returned to school and will be using the sports fields for their practices. Hopefully yours is in good shape, as injuries can happen so quickly! When did you last inspect them? A week ago? A month ago? Do you have accurate records of the maintenance you performed this year? Will you be able to tell the insurance adjustor precisely what has been done to ensure safe playing conditions?

**THE TIME IS NOW!**

*Sincerely yours,  
Michael Bladon*

## Report on the Athletic Turf Field Day

(Held at the University of Guelph,  
Alumni Stadium, June 18, 1987.)

There were 145 delegates and 12 distributors in attendance for this field day. They listened to talks on athletic turf maintenance programs and liability insurance and its problems. The distributors then demonstrated the different types of turf maintenance equipment now available.

After a box lunch it was time to head over to the Cambridge Research Station where turf type perennial ryegrasses were used for athletic field situations. Dr. Chris Hall

indicated uses of different types of herbicides at different strengths for growth regulation. Lastly, delegates were shown Dr. Lee Burpee's work in trying to isolate a natural fungus as an environmentally safe way to kill dandelions. (See also the article "Natural Fungus..." appearing on page 4 of this issue.)

Along with the distributors, your Sports Turf Association had a booth where delegates could pick up a brochure or membership application, a news release, and a questionnaire on different facets of Sports Turf.

All in all, this was a very useful and worthwhile day. See also "Guidelines for Sports Field Management" which appears on the next page of this issue.

# Guidelines for Sport-Field Management

by: L.L. Burpee  
The Guelph Turfgrass Institute

Annette Anderson  
OMAF Turfgrass Extension Specialist

The development of a strategy for sports field management is influenced by many environmental and economic factors. Therefore, it is impossible to develop a single set of recommendations that will result in acceptable playing surfaces on all sports-fields. The following guidelines are based on what we believe to be sound techniques for turfgrass management. Although specific modifications of these guidelines may be adopted, the key to successful sports-field management is to apply cultural practices on a consistent and regular basis.

TIME	CULTURAL PRACTICE	COMMENTS
15 April to 15 May	Core aerification	Core in two directions: North-South and East-West.
	Redistribute soil cores	Use drag mat, brush, or harrow in 2 directions.
	Overseed with turf-type perennial ryegrass if turfgrass is thin	Seed in 2 directions at a rate of 140 - 180 kg/ha (3-4 lbs./100 sq.ft. or 131-174 lbs/acre) in each direction.
	Apply "starter" fertilizer* (15-30-15 or similar 1:2:1 ratio). Apply 25-5-10 or similar 4:1:2 ratio if not overseeding.	Apply in two directions at a rate of 12 kgN/ha (0.25 lbsN/sq.ft. or 11 lbsN/acre) in each direction.
	Broadleaf weed control	Accomplished best in September or October. However, spring treatments of 2,4-D, mecoprop and/or dicamba may be applied 1-2 weeks before overseeding or 4-6 weeks after seedling emergence. See labels for rates.
15 June, 15 July 15 August	Apply fertilizer* (25-5-10 or similar 4:1:2 or 5:1:2 ratio)	Apply in two directions at a rate of 12kgN/ha (0.25 lbsN/1000 sq. ft. or 11 lbsN/acre) in each direction. At least half of the nitrogen should be in slow release form.
1 September to 15 September	Repeat core aerification	Core in two directions, then use drag-mat in two directions.
	Overseed with turf-type perennial ryegrass	Use rates that are recommended for spring seeding. Fall seeding is not recommended for poorly drained areas or areas north of 50° latitude.
	Apply "starter" fertilizer* (15-30-15 or similar ratio). Apply 25-5-10 if not overseeding. Broadleaf weed control.	Use rates that are recommended for spring application. See recommendations for spring application.
30 September <u>and</u> 15 October	Apply fertilizer* (25-5-10 or similar ratio)	Use rates that are recommended for summer applications.
After 20 November	Apply "dormant" fertilizer (25-5-10 or similar ratio)	Apply in two directions at a rate of 24 kgN/ha (0.5 lbsN/1000 sq.ft. or 22 lbsN/acre) in each direction.

\*The application of phosphorous and potassium to turf areas should be based on soil test results. Soil samples should be taken to a depth of 15 cm.

Fertilizer recommendations are often based on pounds of actual (elemental) Nitrogen applied. By using the following calculation you can determine the application rate of any Nitrogen fertilizer formulation.

To apply 1 pound actual N/1000 sq.ft. (0.5kgN/100m<sup>2</sup>)

$$\frac{100}{\% \text{ nitrogen in the fertilizer}} \times 1 \text{ lb.N/1000 sq.ft.} = \text{lbs. fertilizer/1000 sq. ft.}$$

or

$$\frac{100}{\% \text{ nitrogen in the fertilizer}} \times 0.5 \text{ kgN/100m}^2 = \text{kg fertilizer/100 m}^2$$

**Example:**

How much 25-10-10 fertilizer would be required to apply 0.5 lbsN per 100 sq ft?

$$\frac{100}{25} \times 0.5 \text{ lbsN} = 2 \text{ lbs. 25-10-10}$$

(to convert this to lbs./acre, multiply by 43.56. 2 X 43.56 = 174.24 lbs/acre 25-10-10 are required.

**TO OBTAIN 1 LB.N (0.5 KgN)**

% Nitrogen in Fertilizer	LBS /1000 FT <sup>2</sup> (KG/100 M <sup>2</sup> )	LBS/ ACRE (KG/HA)
5	20.0 (9.75)	871 (975)
6	16.7 (8.14)	727 (814)
7	14.3 (6.98)	623 (698)
8	12.5 (6.1)	545 (610)
9	11.0 (5.36)	479 (536)
10	10.0 (4.88)	436 (488)
11	9.0 (4.39)	392 (439)
12	8.0 (3.91)	349 (391)
13	7.7 (3.75)	335 (375)
14	7.0 (3.42)	305 (342)
15	6.7 (3.27)	292 (327)
16	6.3 (3.07)	274 (307)
17	5.9 (2.88)	257 (288)
18	5.6 (2.73)	244 (273)
19	5.2 (2.54)	227 (254)
20	5.0 (2.44)	218 (244)
21	4.8 (2.34)	209 (234)
22	4.5 (2.20)	196 (220)
23	4.4 (2.15)	192 (215)
24	4.2 (2.05)	183 (205)
25	4.0 (1.95)	174 (195)
26	3.9 (1.90)	170 (190)
27	3.7 (1.80)	161 (180)
28	3.6 (1.76)	157 (176)
29	3.5 (1.700)	152 (170)
30	3.3 (1.61)	144 (161)

## Report on Second Annual Turfgrass Research Field Day

The second annual Turfgrass Research Field Day was held at the OMAF Horticulture Research Station at Cambridge on August 27, 1987. This event was sponsored by the Ontario Turfgrass Research Foundation (OTRF), The Guelph Turfgrass Institute (GTI), and the Ontario Ministry of Agriculture and Food (OMAF).

The field day was started at noon with a barbeque lunch, which was followed by a tour of the turfgrass research plots and several equipment demonstrations. A large caliper tree was also planted on the site by Douglas Woods Large Tree Sales Limited.

According to Annette Anderson, OMAF's Turf Extension Specialist, over 250 people had been registered to attend the field day. This event attracted people from all sectors of the

turfgrass industry, including athletic field managers, golf course superintendents, sod growers, lawn care professionals, and parks and recreation personnel.

Participants were invited to view the plots at their own leisure after a welcome from GTI Director Lee Burpee. All research plots were numbered and participants were given a corresponding book which outlined the objectives, methods and observations of each experiment. Individual researchers were also on hand to answer more specific questions.

*Photo: GTI Director Dr. Lee Burpee welcomes delegates to the second annual turfgrass research field day, held in Cambridge on August 27. Article and photo courtesy of Horticulture Review.*



## Natural fungus may hold secret to safe dandelion killer

An environmentally safe way to destroy dandelions without harming the surrounding grass may not be far off. Prof. Lee Burpee, Environmental Biology, plans to take a natural fungus that kills dandelions and adapt it for commercial use.

Burpee, who is director of the Turfgrass Institute, says he hit on the idea by accident when a colleague mentioned seeing a dandelion that seemed to be dying off because of a fungus.

Burpee found diseased dandelions in the field and brought them back to the laboratory, where he isolated the fungi and bacteria from the plants. "Some of the fungi are doing an excellent job of killing dandelions," says Burpee. "One species kills an eight week old dandelion in just four days." The next step is to grow dandelions in turfgrass plots at the University-operated Horticulture Research Station in Cambridge, and inoculate the plants at different stages to observe what happens.

Burpee and his colleagues have collected seeds and are staggering the seeding over a three month period. In this way, he says, they will be able to see how the fungi affect plants at different stages of development. Because dandelions are perennial plants, the researchers will do another study next spring. "We want to

know the exact age of the plants we're innoculating", says Burpee. It may turn out that the innoculation will have to be done every second or third year." The research looks promising in the lab trials, he says, but the field trials will "make or break it".

Burpee, a turfgrass researcher for 14 years, says there has been considerable interest in the past five years in the development of biological pesticides and herbicides. A naturally destructive substance like fungus has an environmental advantage because it is biological, not chemical, he says. That means the toxic effects on humans will be minimal. "The fungus already exists in nature, and we have not changed it in any way."

The researchers have yet to determine the effect of the fungus on other broadleaved plants. Grass is not susceptible, but other plants may be. "We're working on a method to keep the fungus from sporulating so it won't move to other plants", he says.

Considerable government and private interest has been shown in Burpee's research, with funding commitments coming from the Ontario Ministry of Agriculture and Food, The Natural Sciences and Engineering Research Council, the Ministry of the Environment, and Philombios, a Saskatoon-based biotechnical firm.

[From AT GUELPH, July 9, 1987]

## Soak trimmer line for longer use

A tip from Thomas M. Cline, Silver Springs, Md.: "Each spring we buy large spools of nylon line for our trimmers. Immediately, we submerge the spools in a drum of water. As we need to refill the trimmer head, we take a spool out of the water and cut off the required amount. The soaked line lasts twice as long as unsoaked line. It is a cheap technique that cuts nylon line purchase by 50%.

Apparently the nylon line "sets" in coils on the spools; the water penetrates the porous nylon, making it more pliable. This is especially true for line that has been stored for a long time.

## Numbers of lawngrass seed per pound

Lawngrass seeds are smaller than you might think. Kentucky bluegrasses have more than 1,000,000 seeds per pound; fine fescues have 500,000 seeds per pound; turf-type tall fescues 300,000 and perennial ryegrasses 225,000 seeds per pound. The smallest lawngrass seeds are colonial bentgrass. There are more than 6,000,000 seed of these in each pound. Lawngrass seed purity should be close to 98% and seed germination about 85%. This guarantees good healthy seed that will produce a lot of vigorous lawngrass plants at a very small cost per plant.

[Metric conversions, anyone?]

## WELCOME!

### To Our New Members

Peter Prakke  
PAC Consultants, Smith Falls

Everrett Buntsma  
Town of Pickering

Pat Tucker  
Grounds Supt., Un. of Guelph

## Dr. Kurtz applauds turf's 'new breed' in Ohio Turfgrass Show Speech

"We have a new breed of person coming along," says Dr. Kurtz of the sports turf segment of the green industry. "It's no longer 'five yards and a cloud of dust'... but we may still be as much as 70 years behind the gold course superintendents."

Kurtz, speaking at the Ohio Turfgrass Foundation conference, further noted that "the sports turf industry has never recovered from the 'wonder carpet'". He did say, however, that some new developments could help athletic field managers narrow the gap.

Specifically:

- geotextiles, which affect better drainage and warm frozen turf
- pre-germination tactics for quicker growth
- turf colorants for dormant turf
- improved turfseed varieties
- sod anchoring for new sod.

"The athletic segment of the industry is just starting to blossom," claims Kurtz, who is executive director of the Sports Turf Managers Association.

[from Weeds Trees & Turf, February, 1986]

## A Final Note

We sincerely hope that you have enjoyed this first issue of the Sports Turf Association Newsletter. We invite comments and suggestions for future articles from all of our members.

Write or call a board member, or send your comments to the publisher: Rita Weerdenburg c/o Horticulture Review, P.O. Box 653, Oakville, Ontario L6J 5C1 [416] 878-1518.