

A Look At ...



FON
force of nature

A LOOK AT ... FROM AN INDEPENDENT PERSPECTIVE from
National Organization Responding Against HUJE that seek to harm the Green Space Industry (NORAHG)

Golf Course Maintenance

A Look At Managing Turfgrasses

Turf Cultivation (aka Aeration)

September 15th, 2011

Beard (2005), Golfdom (2011), & Vargas (2003)

Selected and adapted excerpts

Term — TURF CULTIVATION (aka aeration, aerification)

Description — the working of a turf soil without destruction of the turf; e.g. core, fork, groove, slice, solid-tine, spike, punch, water-injection, and air-injection. [Beard, 2005]

Term — SOIL CULTIVATION

Description — the shallow tillage operations performed to create soil conditions conducive to improved aeration, infiltration, and water conservation. [Beard, 2005]

Term — CORE CULTIVATION

Description — a method of turf cultivation in which small soil cores, of 0.25 to 1.0-inch (6.5–25.0 mm) in diameter, are removed by hollow tines or spoons; the typical mechanically-powered coring device penetrates to a depth of 3 to 4-inches (76–102 mm). [Beard, 2005]



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Advantages of Turf Cultivation

Is really necessary to CULTIVATE (i.e. aerify) the golf course so frequently ?

Golf courses that have been routinely CULTIVATED a minimum of TWICE PER YEAR are most likely have BETTER TURF AND PLAYING CONDITIONS.

Those courses where there has been LITTLE OR NO CULTIVATION tend to have POOR TURF AND PLAYING CONDITIONS.

Throughout the previous spring and fall, an INADEQUATE CULTIVATION program will WEAKEN TURF RESISTANCE TO HEAT AND DROUGHT STRESS as well as DISEASES.

Obviously, an ADEQUATE CULTIVATION program will provide a well-rooted turfgrass plant that WILL BETTER RESIST SUMMER STRESS AND SUMMER DISEASES.

For most turfgrass conditions that are subject to traffic, CULTIVATION is necessary in either spring or fall, or both.

More specifically, on golf course putting greens, ...

CORE CULTIVATION NEEDS TO BE PERFORMED
ONCE FOR EVERY 10,000 ROUNDS OF PLAY.

Beyond 25,000 rounds, non-core CULTIVATION methods, such as SOLID-TINE, must be used in the overall TURF CULTIVATION program throughout the summer months.



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Advantages of Turf Cultivation (continued)

TURF CULTIVATION (i.e. aerification) is the answer to many problems.

- Carbon dioxide toxin is better released from the soil
- Compaction in the soil is alleviated
- Disease resistance of turf is improved
- Fertilizer applied to the soil is more effectively placed
- Heat and drought stress resistance of turf is improved
- Organic matter in the soil is removed
- Oxygen absorption in the soil is improved
- Oxygen movement in the soil is also improved
- Root system is deeper, healthier, and revitalized
- Seed germination is improved for over-seeded turf
- Soil is loosened and easier for roots to penetrate
- Thatch decomposition is increased
- Water absorption in the soil is improved
- Water movement in the soil is also improved



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Turf Cultivation and Diseases

An adequate TURF CULTIVATION program will tend to DECREASE turf susceptibility to the following diseases —

- Anthracnose Basal Rot
- Anthracnose Foliar Blight
- Pythium Root Rot
- Summer Patch
- Take-All

Moreover, SOLID-TINE CULTIVATION, combined with frequent light vertical mowing, mechanical grooming, raking, spiking, top-dressing, and vigorous brushing, WILL DISRUPT the growth and development of the following diseases —

- Algae and Algal Scum
- Moss
- Slime Molds

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BOGUS Excuses For Not Cultivating

- Golfers complain every time we CULTIVATE (i.e. aerify).
- We get questions from golfers demanding reasons for CULTIVATION.
- We have a golf event coming up and we do not want to tear up the golf course with TURF CULTIVATION.
- We have no dates in the golf calendar for that will allow for CULTIVATION.
- We need to book more outings and fill up as many Mondays as possible for revenue that we desperately need.

Consequences of Not Cultivating

If all of the above BOGUS excuses are allowed to « *get in the way* » of scheduling TURF CULTIVATION and other important golf course maintenance procedures, it is only a matter of time before the « *Grim Reaper* » will make a visit to the golf course.



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Master Plan for Turf Cultivation

The golf course superintendent must discuss the TURF CULTIVATION dates with GOLF CLUB OFFICIALS.

GOLF CLUB OFFICIALS include club manager, events manager, golf pro, golf committee chairman, and greens chairman.

1. First, establish how many times a year the superintendent needs to CULTIVATE (aerate) greens, approaches, tees, and fairways.
2. The superintendent then offers his desired dates to CULTIVATE the golf course.
3. The GOLF CLUB OFFICIALS work with the superintendent to accommodate the requested TURF CULTIVATION dates.
4. The GOLF CLUB OFFICIALS set the « *yearly events calendar* », working around the desired TURF CULTIVATION dates.
5. The GOLF CLUB OFFICIALS agree to refrain on booking outings on the dates selected for TURF CULTIVATION.
6. All involved in the above process agree NOT TO REQUEST to modify or change the events schedule, as it pertains to TURF CULTIVATION dates, for the following year.

Summary — Reducing or eliminating the TURF CULTIVATION program will have serious consequences at some point in time.

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A LOOK AT is a report presented by National Organization Responding Against Hujie that seek to harm or misinform the Green Space Industry (NORAHG).

A LOOK AT is a series of reports destined for the green space industry, nationwide across Canada, the United States, and overseas, and has been developed for the education and entertainment of the reader by providing TECHNICAL INFORMATION WITH COMMENTARY.

A LOOK AT is TOTALLY INDEPENDENT and NON-PROFIT. Don't thank us. It's a public service. And we are glad to do it.

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The information presented in A LOOK AT is for preliminary planning only. Before making a final decision, the turf manager is expected to obtain trusted expert advice from extension specialists, local distributors and/or agronomists. All decisions must take into account the prevailing growing conditions, the time of year, and the established management practices.

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A LOOK AT, and its various incarnations, is the brainchild of William H. Gathercole and his colleagues.

Here is a brief summary of Mr. Gathercole's career —

Fields of study — Horticulture/Agriculture, Mathematics, Physics

Alma mater — McGill University • University of Guelph • the first person ever to obtain university degrees and contribute to both the professional lawn care and golf maintenance industries

Expertise in — environmental issues and environmental terrorism • turf and ornamental maintenance and troubleshooting • history of the industry • sales and distribution of seeds, chemicals, fertilizers, and equipment • fertilizer manufacturing

Notable activities — worked in virtually all aspects of the green space industry, including golf, professional lawn care, distribution, environmental compliance, government negotiations, public affairs, and workplace safety • supervisor, consultant, and, programmer for the successful execution of hundreds of thousands of management operations in the golf and urban landscape, as well as millions of pest control applications • advisor, instructor, and trainer for thousands of turf and ornamental managers and technicians • pesticide certification instructor for thousands of industry workers — founder of the modern professional lawn care industry • prolific writer for industry publications and e-newsletters • first to confirm the invasion of European Chafer insect in both the Montreal region and the Vancouver/Fraser Valley region • with Dr. Peter Dernoeden, confirmed the presence of Take-All Patch as a disease of turf in Eastern Canada • with Dr. David Shetlar, confirmed the presence of Kentucky Bluegrass Scale as an insect pest in South-Western Ontario, and later, in the Montreal and Vancouver regions • the only true reliable witness who intervened in the development of prohibition in the town of Hudson, Quebec

Special contributions — creator of the exception status that has allowed the golf industry to avoid being subjected to the prohibition of pest control products • creator of the signs that are now used for posting after application • co-founder of annual winter convention for Quebec golf course superintendents • the major influence in the decision by Canadian Cancer Society to stop selling for profit pesticide treated daffodils • retired founder of FORCE OF NATURE and A LOOK AT e-newsletters

Notable award — man of the year for contributions leading to the successful founding of Quebec professional lawn care industry, which served as a beach-head against activism in the 1980s and 1990s

Legacy — for fifteen years, the strategies designed and implemented by Mr. Gathercole and his colleagues ensured the control of environmental activists, providing peace for the entire modern green space industry across Canada • orchestrated, with his colleagues, legal action against activists in the town of Hudson, Quebec

Mr. Gathercole is now retired, although his name continues to appear as founder of A LOOK AT and FORCE OF NATURE e-newsletters.



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