

The Tines they are a-changin'

Yes, aeration tines are changing and so are aeration practices. More and more sports turf managers are discovering some remarkable improvements in their turf after adopting an extended aeration program.

Don't get us wrong. We are not suggesting you throw out the old in favour of the new. Those Coring machines, Shatter Tines,

Spoons, Spikes or whatever may serve you well for a while yet.

But you know even better than us how difficult it is to squeeze extended aeration activities into the schedule for most football, soccer and baseball fields. So we've come up with an answer. **It's the new Bannerman Slitter Tines and the Multi-Ject and Super-Ject aeration frames.**

They are available in tow-behind, 3 pt. hitch and walk-behind models.

Just to whet your appetite here are some of the Spec's:

Depth 7", Revitalizes root zone for healthier, faster growing plants. No surface damage, Cuts through thatch and speeds decomposition, Reduces layering.

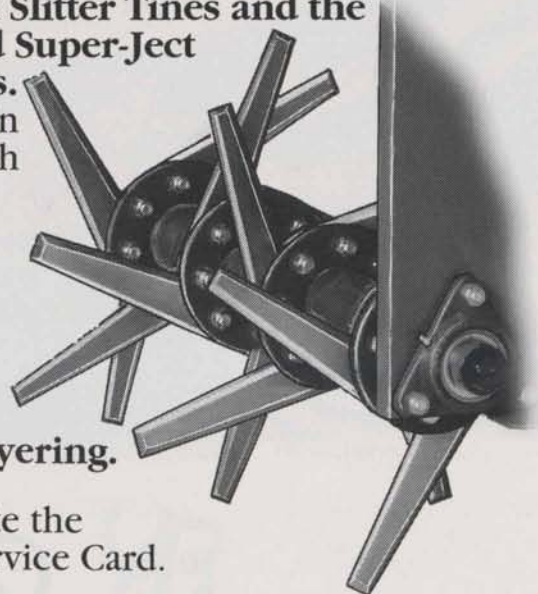
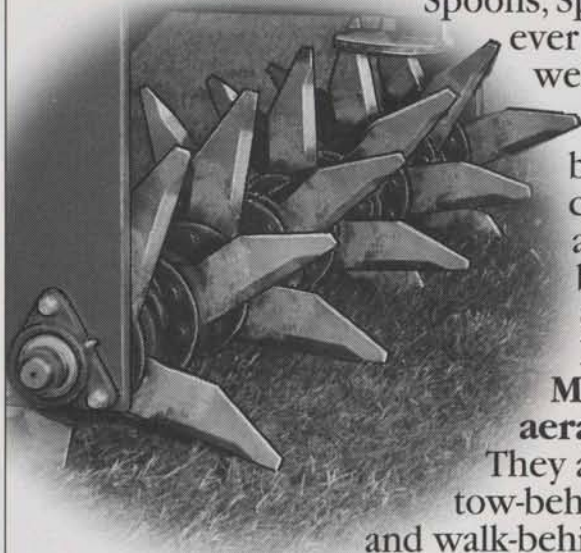
We'd like to tell you more and demonstrate the product if possible. Check your reader Service Card.

Bannerman

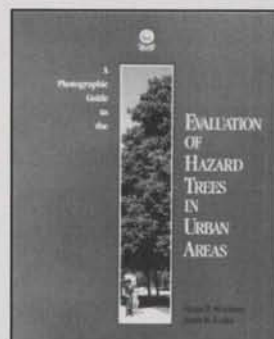
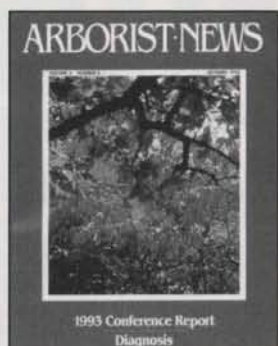
Gordon Bannerman Limited, 41 Kelfield street, Rexdale, Ontario, Canada M9W 5A3

Telephone 416-247-7875 • Fax 416-247-6540

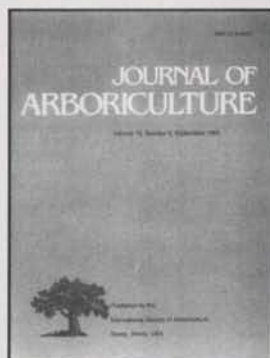
Toll-Free 1-800-665-2696



IN THE TREE CARE BUSINESS, WHAT YOU



DON'T KNOW



CAN'T HELP YOU.

You don't have to read between the lines to know clients demand results. Beautiful trees. A gorgeous landscape. ASAP. But clients also expect information from you. (*Read between the lines and you will know they are probing. Does this arborist measure up?*) You only get one chance with most clients. You need to make the most of it.

KNOWLEDGE IS POWER.

The International Society of Arboriculture (ISA) is the prime source for tree care knowledge: research-based knowledge you can use now, and knowledge gained through networking with professional peers. ISA membership entitles you to all of this knowledge, and one thing more. The success and prestige that accompany it.



ISA Membership is Knowledge
To Join the ISA, Please Call 217-355-9411

sportsTURF

PROGRAM



THE OFFICIAL PUBLICATION OF THE
SPORTS TURF MANAGERS ASSOCIATION

STMA OFFICERS

PRESIDENT **GREG PETRY**
PAST PRESIDENT **DR. GIL LANDRY, JR.**
PRESIDENT-ELECT **MIKE SCHILLER**
COMMERCIAL VICE PRESIDENT **EUGENE MAYER**
SECRETARY **DR. HENRY INDYK**
TREASURER **STEPHEN GUISE**
STMA BOARD MEMBERS **RICHARD MOFFITT,**
KEN MROCK, VINCE PATEROZZI, PHILIP ROBISCH,
WILLIAM WHIRTY
EXECUTIVE DIRECTOR **BRET KELSEY**

STMA OFFICE

401 N. MICHIGAN AVE., CHICAGO, IL 60611 (312) 644-6610

MAGAZINE STAFF

PRESIDENT **MARK ADAMS**
PUBLISHER **BRUCE F. SHANK**
EQUIPMENT EDITOR **DANIEL INGHAM**
VICE PRESIDENT SALES/OPERATIONS **COLLEEN LONG**
ADVERTISING SALES **WILLIAM RYAN**
PRODUCTION MANAGER **SUSANNE K. NOBLE**
ART DIRECTOR **DEBORAH A. BELLE**
ELECTRONIC PRODUCTION **NICOLETTE SUNDBERG**
DIRECTOR/FULFILLMENT **ROSA SALOMON**
CONTROLLER **MARSHA J. WASSER**
BUSINESS MANAGER **PAUL L. D'ENTREMONT JR.**
ACCOUNTING **JODI TROUP, CHERI MARTIN**
ADVERTISING COORDINATOR **YVONNE ADAMSON,**
BRIDGET HEINRICH
CLASSIFIED **MELISSA BARRASSO**

ADVERTISING, EDITORIAL AND CIRCULATION OFFICES
68-860 PEREZ RD., SUITE J, CATHEDRAL CITY, CA 92234



AN ADAMS PUBLISHING COMPANY
68-860 PEREZ RD., SUITE J, CATHEDRAL CITY, CA 92234
(619) 770-4370; Fax (619) 770-8019

sportsTURF Magazine (ISSN 1061-687X) is published monthly except bi-monthly November/December by Gold Trade Publications, Inc. Material in this publication may not be reproduced or photocopied in any form without the written permission of the publisher.

Copyright © 1994. Member of the
Business Publications Audit of Circulation, Inc.



SUBSCRIPTION RATES

ONE YEAR \$33 TWO YEARS \$50
FOREIGN (ONE YEAR) \$55 SINGLE COPY \$5

SUBSCRIPTION INFORMATION

P.O. BOX 2180, CATHEDRAL CITY, CA 92235-2180.

SECOND CLASS POSTAGE PAID at Cathedral City, CA and at additional mailing offices.

Postmaster: Please send change of address to sportsTURF,
P.O. Box 2180, Cathedral City, CA 92235-2180.

VOLUME TEN, NUMBER TEN

OCTOBER 1994

MAIN EVENTS

8 Chiefs Install Bermuda at Arrowhead

Four years ago, when George Toma passed on the job of Kansas City Chiefs head groundskeeper to Andre Bruce, the team had an artificial turf game field and natural grass practice fields. Arrowhead had always been carpet. But the impossible happened this summer in Kansas City and Bruce is nursing a young bermudagrass gridiron through its first NFL season.

14 Protecting Your Irrigation System From Winter's Fury

Irrigation designer and consultant Lawrence Cammarata urges northern turf managers to blow out their systems with compressed air each fall. He provides tips on how to simplify the winterization process.

17 Restoring Power to Small Engines

The signs of impending engine failure are usually visible long before the failure occurs. If your mower has lost its zip, you might want to rebuild the engine rather than replace the mower. Dan Ingham guides you through the repair and rebuilding processes.

22 A Tale of Two Sports Complexes

The community of Dubuque, IA, is fortunate to have the special services of Wayne Klostermann. He is there for AYSO or the local university when a sports turf challenge arises.

LINE-UP

6	FRONT OFFICE	30	EXPLORING EQUIPMENT
6	EVENTS	33	ROOKIES
7	CHEMICAL LOG	34	CLASSIFIEDS
12	STMA IN ACTION	34	AD INDEX

On The Cover:

Arrowhead Stadium displaying its new bermudagrass field.
Photo courtesy: Lightfoot Photography, Kansas City, MO.

McCord Flotation Tires can eliminate costly tire rutting.

NEW
54-3100-26
SFT 105
Turf Tire

GOODYEAR

Golf Course Superintendents country-wide have proven that **McCords** Flotation Tires are essential during the following delicate operations:

• **Top Dressing** • **Spraying** • **Mowing** • **Back Filling Traps** • **Aerating**

The large contact area of the flotation tire effectively distributes load over a broad area. This produces lower unit ground pressure resulting in minimized soil compaction.



Our custom built tire and wheel combinations will convert your golf course equipment into the most productive tools you will ever own. For further information call our toll free number today.

McCord

Terra-Tire Sales and Service

US 24 West, Box 743, Monticello, IN 47960 • In the United States and Canada 800-348-2396 FAX: 219-583-7267
Circle 102 on Postage Free Card

THE FRONT OFFICE

OPINION PAGE



SPORTS TURF MANAGERS SPEND MORE THAN ONE BILLION DOLLARS

Even though sports turf managers' budgets are generally a fraction of golf course superintendents', they outnumber superintendents almost three to one. Altogether, they spend about as much each year on products and services as superintendents. Solid data on the size of the sports turf universe now enables us to project expenditures for the entire industry.

The sports turf industry is made up of four major parts, all of which manage high-use, recreational turf facilities. They include parks, public and private high schools, colleges and universities, and private or municipal sports complexes. Combined they total 42,000 facilities with turf management expenditures of \$1.2 billion.

They break down as follows:

Sports Complexes — 800 facilities spending \$50 million.

Includes major and minor league baseball, professional football, amateur sports facilities, polo, horse racing, etc.

Parks — 13,000 districts spending \$450 million.

Municipally owned and operated recreational facilities.

High Schools — 20,000 schools spending \$350 million.

19,000 public and 1,000 private high schools.

Colleges and Universities — 9,700 campuses spending \$350 million.

No one can dispute that considerably more people use sports turf facilities than golf courses. Ask any park superintendent how many games are played on his fields during an average weekend. You won't need to be convinced further. The concentration of play on our existing sports facilities is increasing while construction of new facilities has to exceed the 300-400 new golf courses built each year. If sports turf has the same rate of growth as golf (two percent), then more than 800 new parks, schools, colleges, stadiums, horse tracks, softball arenas, etc. must be built each year.

My purpose is not to bag on golf. It is to demand recognition for the importance of sports turf facilities in this country. The quality of golf courses in this country is unmatched because we focus so much attention on them. We need to focus equal attention on the quality of our parks, schools and other sports complexes. I can give you many reasons why sports turf facilities should be better than golf courses; our children play on them, the number of users is greater, they do more for fitness and health, and they are in our own neighborhoods. Now that the dollar value of sports turf management has been established, can we now concentrate on the personal importance of our fields, diamonds, pitches, courts and tracks?

Bruce F. Shank

EVENTS

CALENDAR

NOVEMBER

6-9 International Irrigation Exposition. Atlanta, GA. Contact: Irrigation Association, (703) 573-3551.

7-9 Kentucky Turfgrass Conference. Louisville, KY. Contact Dr. Dwight G. Barkley, (606) 622-2228.

8-11 Forty-Ninth Annual Oklahoma Turf Conference. Oklahoma City, OK. Contact Tonya Murray, (918) 251-4868.

8-11 New York Turf & Grounds Exposition. Rochester Riverside Convention Center, Rochester, NY. Contact: (518) 783-1229.

13-17 Green Industry Expo (GIE). St. Louis, MO. Contact for GIE, Eleanor Ellison, (404) 973-2019.

13-19 Ninth Annual Pacific Southwest Maintenance Management School. UCLA Conference Center, Lake Arrowhead, CA. Fee is \$610 and includes instruction, course materials, reference notebook, all meals and housing for the full five-day program. For information, call (800) 796-NRPA.

28-30 North Central Turf Expo. St. Charles, IL. Contact: (312) 616-0800.

DECEMBER

30-1 Rocky Mountain Turf Conference. Colorado Convention Center, Denver, CO. Contact: (303) 688-3440.

5-7 Texas Turfgrass Association Conference and Show. Fort Worth, TX. Contact Shirley Duble, (409) 693-1656.

5-7 Ohio Turfgrass Foundation Conference and Show. Columbus Convention Center, Columbus, OH. Contact (614) 261-6750.

Send announcements of your events two months in advance to: Editor, **sportsTURF magazine**, 68-860 Perez Road, Suite J, Cathedral City, CA 92234. Fax (619) 770-8019.

CHEMICAL LOG

New Chemistry Offers Lower Toxicity

By Helen M. Stone

A new class of insecticides promises sports turf managers season-long control of many common insect pests. If you battle grubs each spring and summer (including larvae of Japanese beetle, black turfgrass ataenius, chafer, and Oriental, Asiatic and May/June beetle) help is on the way. Likewise, crown-inhabiting insects such as billbugs and annual bluegrass weevils also are controlled.

Extensively tested in both the lab and field since 1989, imidacloprid has demonstrated excellent control of the above pests. The first compound developed for commercial use, Merit, received EPA registration in March of 1994. The insecticide is manufactured and marketed by Miles Inc. Specialty products.

Imidacloprid belongs to an entire new family of chemistry, the chloronitrotyls. The chemical controls insects by both ingestion and contact. It actually disrupts an insect's nervous system, resulting in its death. Because its mode of disruption is so specific, it has a very low toxicity level to mammals, birds and fish. For example, researchers have found imidacloprid to be 182 times less toxic to birds, 300 times less toxic to mammals and a staggering 247,000 times less toxic to fish than other soil insecticides. In addition, imidacloprid has no effect on cholinesterase.

The signal word on the label is "Caution."

Aside from its low toxicity, imidacloprid is applied at extremely low rates. For turfgrass, the recommended rate is .3 pound of active ingredient per acre, compared to two to eight pounds per acre for standard insecticides. One application in the spring to control billbugs or ataenius also will offer control for grubs later on, eliminating the need for multiple pesticide applications.

Application Techniques

Although imidacloprid can be used on a curative basis, best results are seen

when it is applied before egg-laying activity or insect populations become excessive. The soluble powder mixes readily with water and may be used in many types of application equipment. A granular formulation will be available next year.

Be sure that your spray equipment is accurately calibrated. A uniform, coarse droplet spray using low pressure will minimize or eliminate off-target drift. Imidacloprid is very toxic to bees, so be certain that it is not applied to blooming plants or weeds if bees are present. Although the toxicity to fish is low, do not apply it to bodies of water, or clean equipment or dispose of waste in water.

After application, irrigate within 24 hours to move the insecticide through the thatch and into the soil. Do not mow until

after this irrigation (or rainfall) has occurred, or you could affect the uniformity of application. If the soil is waterlogged or saturated, it will not move properly to the target zone, so application is not advised under these conditions.

If your responsibilities also include landscape plantings, imidacloprid has also shown excellent control of adelgids, aphids, mealybugs, thrips, whiteflies and several other ornamental insects. It can be used as a foliar spray or a soil drench.

With the general public's uneasiness about chemical applications and resultant laws and regulations, the advent of new pesticides that have a low impact on the environment can only benefit the turf professional. □

Finally, A Mid-Sized Topdresser for 1/3 the Price of the Big Boys.



For many turf managers, large-area topdressers are way too expensive, while "finesse" topdressers are too limited in what they can do. If that's what you've found, The Millcreek Topdresser/Spreader is your answer. First, it's about 1/3 the price of typical large-area topdressers. No it

doesn't hold 6 cubic yards, but it spreads 2 cubic yards in 7 minutes and will easily topdress a football field in less than a day. It's safe and simple for a single operator. Plus it's unsurpassed for spreading compost, grass clippings, infield mix, lime, top soil, de-icing materials and more. With a 10-year guarantee on the floor, you get long-term spreading efficiency and versatility at a price you can handle today. Call for your FREE information.

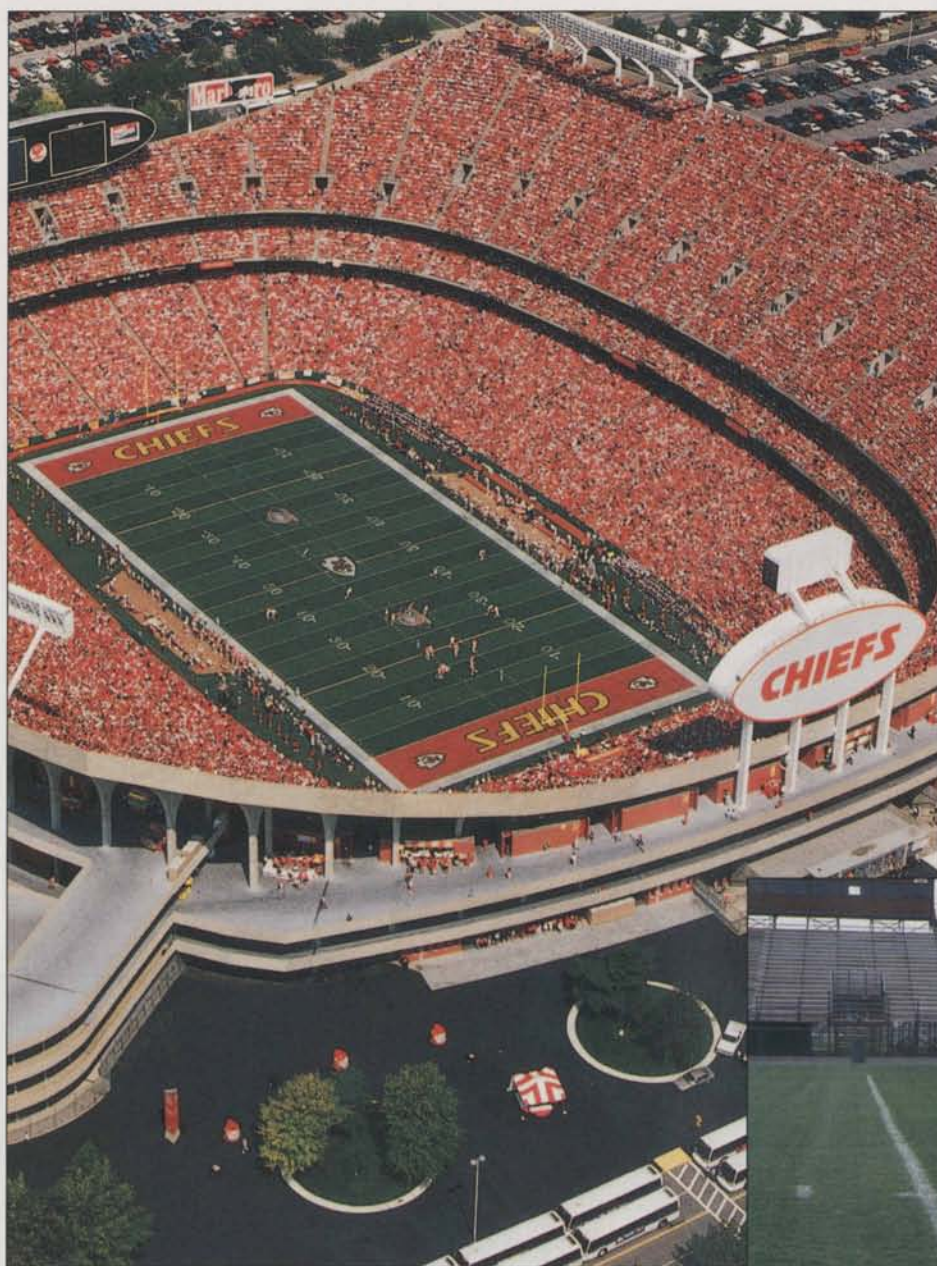


Patented Spreading Action

Millcreek's patented "PowerBrush" action and adjustable directional fins enable you to spread almost any flowable material in paths from 3' to 10' wide. A single operator needs no tools for safe, easy adjustments. PTO or engine-drive. 2 cu. yd. capacity.



2617 Stumptown Rd.
Bird-in-Hand, PA 17505
1-800-879-6507
Dealer inquiries invited.



Chiefs Install Bermuda at Arrowhead

Andre Bruce (below) at the Chiefs' training camp at the University of Wisconsin, River Falls.

The alternating shades of green at five-yard intervals is accomplished by mowing and fertilization. Photo of Arrowhead courtesy: Lightfoot Photo.



By Alan Goforth

It doesn't take much to go unnoticed as a groundskeeper in the National Football League. Just perfection. Groundskeepers are a lot like offensive linemen: If they do their job properly, no one pays much attention. Make one mistake, however, and the whole world knows.

Andre Bruce, head groundskeeper for the Kansas City Chiefs, felt that pressure keenly last summer as he raced to complete the new Bermudagrass

field at Arrowhead Stadium. A Pink Floyd concert in late June and an early start of the pre-season squeezed his stand-establishment window to just four weeks.

"When I was putting in the field, I used to lie awake at night staring at the ceiling," Bruce recalls. "I tried to think if there was anything else I could do to make sure the field was a success. There's no margin for error on this job. Everything you do, you want to be sure it works. You don't want to have to answer for your mistakes."

Rave Reviews

Judging by the overwhelmingly positive reaction from the players, coaches and fans after the July 31 game against the Houston Oilers, Bruce had pushed all the right buttons. Just as important to him, the young stand stood up well to three hours of 300-pound linemen slamming into each other.

"Bermudagrass usually looks like a war zone after a game," he says. "But the field came through the first game much better than I expected."