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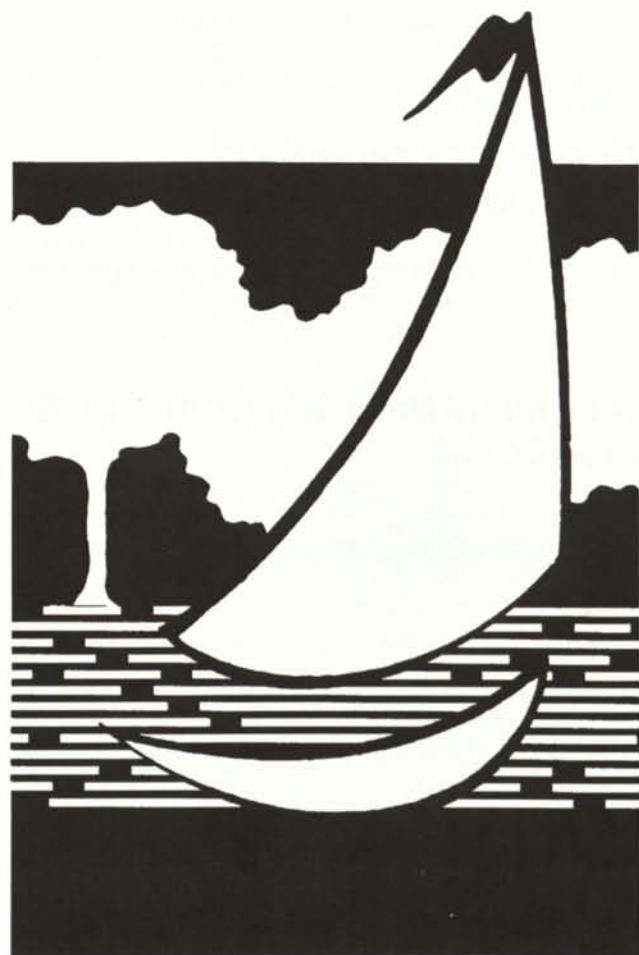
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VOLUME TEN, NUMBER FOUR

APRIL 1994

MAIN EVENTS

8 ATTACK COMPACTION WITH DEEP AND SHALLOW AERATION

Different compaction problems require different solutions. The keys to suc-
cess, says Dr. Gil Landry, include evaluating the depth of the problem,
choosing the proper equipment to address timing, frequency, and above
all, flexibility.

14 1993 COLLEGE DIAMOND OF THE YEAR: MITCHELL FIELD IS THE REAL MCCOY

"Attention to detail is what separates a good field from a great one," says
Monte McCoy, baseball field superintendent at the University of
Oklahoma's L. Dale Mitchell Field. Carefully minding those details has paid
big dividends for the field, the 1993 College Diamond of the Year.

18 PREVENTING INSECT OUTBREAKS FROM THE GROUND UP

A successful pest management defense begins well before any pests show
up to damage turf. Attention to plant health, root growth and develop-
ment, and soil conditions conducive to turfgrass growth is critical, explains
turf specialist Mary Owen.

22 SPORTS TURF MOWING AND FERTILIZATION: PLAN FOR SUCCESS

Careful, well-planned mowing and fertilization can have dramatically posi-
tive effects on sports turf health, as well as aesthetics. Turfgrass researcher
Steve Cockerham offers solid suggestions for building your mowing and fer-
tilization strategies.

LINE-UP

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ON THE COVER: L. Dale Mitchell Field, home of the Oklahoma Sooners
baseball team and 1993 College Diamond of the Year.

Regular aeration can help keep athletic fields playable
under a variety of uses. Photo courtesy: Tom Lujan.



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THE FRONT OFFICE

OPINION PAGE

Back To Basics



The first story I wrote as a boy was in long-hand on paper with inch-high columns. By the time I was a sophomore in high school, I was pecking away at a manual typewriter. In college, I switched to a luxurious electric typewriter. Once out of school and working for a small town newspaper, I learned to use a word processor.

Whatever tool was used to accomplish it, the job was always the same — writing is writing whether you do it in your own hand or on a computer screen. But the

need for improvements in the tools for writing were born of the fact that much of the process is mechanical and drudgerous. A word processor can't turn a phrase or write a sizzling lead, but it can move a block of text in an eye-blink — a process that once required a pair of scissors and a bottle of glue.

Tools are born out of need, forged out of hardship or even simple inconvenience. Technological advancement comes most often not out of some noble pursuit, but because some task is a pain in the neck to accomplish. Refinements in technology begin with building upon technology that exists, or when "road blocks" force re-evaluation of it.

The sports turf industry is no exception to technological advancements and shifts, or the impetus for them. Mechanical aerators were developed, not because it's impossible to aerate large areas of turf by hand, but because it's back-breaking and time consuming to do so. Integrated Pest Management has gained momentum largely in response to increasing restrictions, both rational and panic-driven, on chemicals. A major equipment manufacturer recently unveiled an electric greensmower in response to impending clean air standards. The list goes on and on.

Sometimes, in light of real or perceived problems with a specific tool, the solution is to use it sparingly and go back to basics. Such is the case with many chemicals today. They can be unbelievably useful, but rather than relying on them solely, a growing number of sports turf managers are rediscovering the role of proper management in disease and pest prevention. As we all know, healthy turf is less susceptible to these problems than unhealthy turf. The basic idea, as you'll read in this month's article by Mary Owen of the University of Massachusetts, is to keep turf thriving through cultural practices and, in the process, stop problems before they start.

If my word processor crashes, I can still use my electric typewriter, and if the electricity goes out I can drag the manual dinosaur out of the closet. If I can't find the thing, I can put pen to paper. When current technology is jeopardized or simply fails, going back to basics can help solve my immediate problems. And it can help solve yours.

Matthew Trulio

EVENTS

CALENDAR

APRIL

11-12 48th Annual Southeastern Turfgrass Conference. Spring Hill Country Club, Tifton, GA. Contact: Waldene Barnhill (912) 386-3353 or Brenda Poston (404) 229-8125.

JULY

4-8 World Scientific Congress of Golf. St. Andrews, Scotland. Contact the Sports Turf Research Institute/World Congress of Golf at 44/334-75560.

19-21 3rd Annual Midwest Grounds Management Conference. Illinois State University, Normal, Illinois. Contact: Chuck Scott (309) 438-2032 or fax (309) 438-7955.

13-16 American Association of Nurserymen Conference. Baltimore, MD. Contact: (202) 789-2900.

24-26 International Lawn Garden and Power Equipment Expo. Louisville, KY. Contact: (502) 473-1992.

24-26 Texas Turfgrass Association Seminar. Arlington, Texas. Contact Shirley Duple at (409) 693-1656.

SEPTEMBER

11-13 Golf Europe '94 Munich. Munich, Germany. Contact Jerry Kallman, Jr., Kallman Associates at (201) 652-7070.

18-21 Florida Turfgrass Conference. Ft. Lauderdale, FL. Contact: (407) 898-6721.

OCTOBER

5-6 Southern California Turfgrass Expo. Orange County Fairgrounds, Costa Mesa, CA. Contact: (619) 723-0947.

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National Mower Contest



The year was 1919. The 19th Amendment to the U.S. Constitution was ratified to usher in the era of prohibition. World War I was formally ended with the signing of the Treaty of Versailles in France. Stanard Kinkead was back from the Great War and in a small shop in St. Paul, MN, he started the National Mower Company.

To commemorate their 75th Anniversary, the company is offering a \$100 reward for finding the oldest National Mower still in active service and \$100 to the person who owns it. All entries must include a photograph and must be submitted to National Mower by July 1, 1994.

The company's photo archive revealed this very early, horse-drawn 84" gang-

type triplex from 1921. For more information contact Stan Kinkead, General Manager of National Mower at (612) 646-4079.

Mileage From Waste Tires

As Lancaster City officials and representatives of the California Integrated Waste Management Board (CIWMB) watched, volunteers from non-profit organizations assembled compost bins made from old tire pieces after they were punched out by specially designed machinery. Later, the officials observed a crumb-tire compost mix tilled into the soil of a city athletic field to provide a softer landing for players.

Both projects were made possible by grants from the CIWMB. A \$50,000 business grant enabled K & E Engineering, an aerospace manufacturer, to purchase machinery which they modified to produce not only compost bins made of tires, but trash containers, mats, tree supports and erosion control materials.

The City of Lancaster used a \$96,000 research grant to test the patented compost mix known as the "Rebound System."

The resulting turf is expected to have resiliency which will reduce the chances of injuries to athletes and improve seed germination and root growth. Field maintenance costs and water use are expected to be reduced by the recycled tire mix. Dr. Kent Kurtz, a professor specializing in turfgrass management at California Polytechnic Institute at Pomona, is monitoring the one-year test project.

Scholarship Awarded



Best Sand Corporation, Chardon, OH has awarded its annual turfgrass management scholarship to Scott Thomas Bazan, a student at Ohio State University. The scholarship pays for

tuition and books for one school year.

Bazan, a graduate of Highland High School in Medina, OH intends to pursue a career as a golf course superintendent when he graduates in 1994. He has worked as a crew member at Fairlawn Country Club in Akron.

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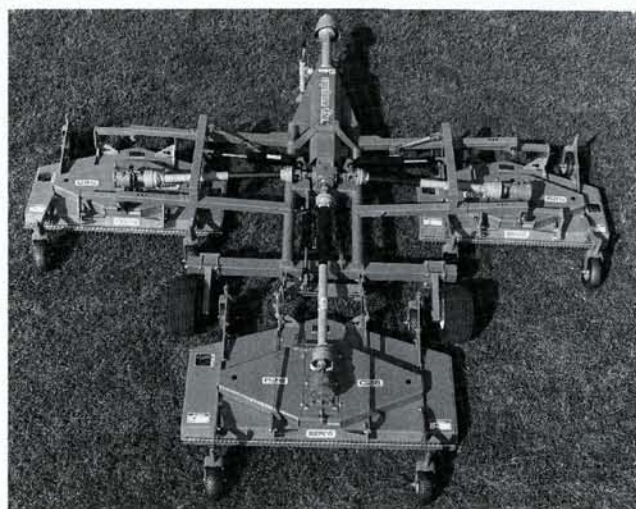
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Attack Compaction With Deep and Shallow Aeration

By Dr. Gil Landry

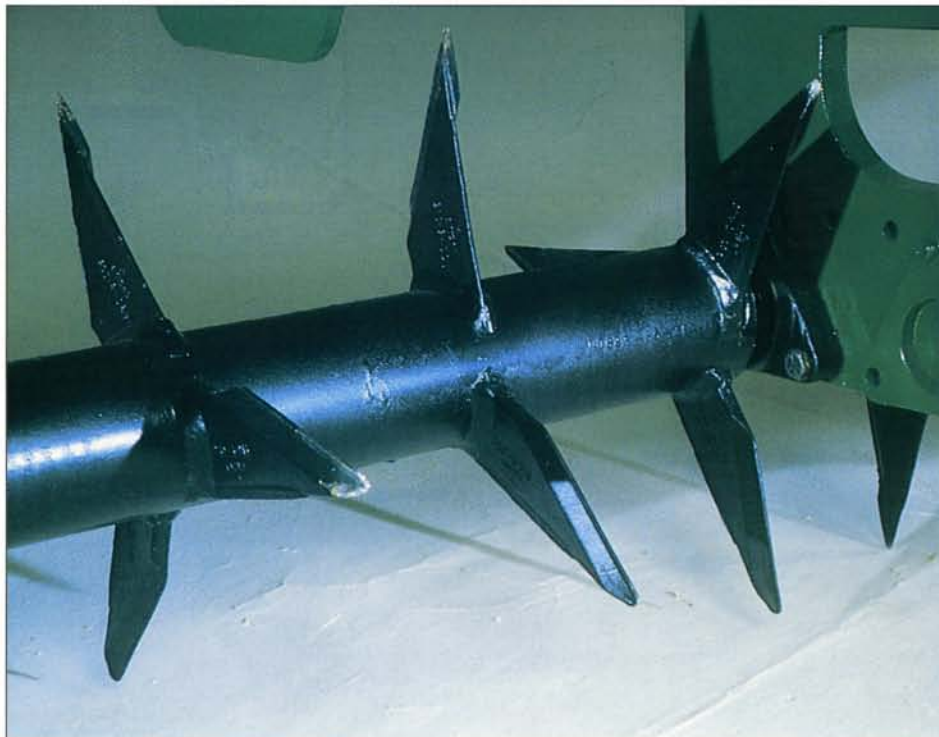
By its very nature, sports turf is developed to be used intensively. Such use requires intensive cultivation programs to relieve "the pain." The development of new cultivation equipment is giving sports turf managers more options to contend with the chief nemesis — compaction and all the problems that accompany it — of their facilities. For years, standard aerators provided cultivation to a depth of 3 to 4 inches. Recently, equipment that provides cultivation down to 16 inches below the surface has been developed.

Soil compaction symptoms include slowed turf growth, reduced quality (turf color and density), frequent drought stress and encroachment from weeds like crabgrass, goosegrass, annual bluegrass, prostrate knotweed or smartweed. These symptoms may be subtle and make diagnosis of the problem difficult. Other common indications of turf decline may appear, such as greater susceptibility

continued on page 12



In addition to a host of aerators that can reach various depths, there are a number of tine options, from hollow to slicing, that can be used to address site-specific problems. Photos courtesy: John Deere Company.



Heavy equipment used during construction can develop subsurface compaction, as can repeated cultivation to the same depth to relieve surface compaction.
