YOU CAN HELP CONTROL



FUSARIUM BLIGHT

WITHOUT COSTLY CHEMICALS...

Mother Nature has ways of controlling diseases of grasses that defy scientific explanation. Such is the case in the use of twenty-to-forty percent Citation perennial ryegrass in a mixture with Kentucky bluegrass. Tests made in areas of high Fusarium blight incidence have verified that such mixtures have better withstood the damaging effect of Fusarium blight without the use of costly chemicals. Citation has an attractive dark green color which blends well with Kentucky bluegrass, and in many tests throughout the U.S., mows superior to other perennial ryegrasses.

The above photo was taken of a test plot located in California. The Fusarium blight has devastated the bluegrass stand on the right. On the left, the balanced plant population using twenty percent Citation perennial ryegrass and eighty Kentucky bluegrass is unaffected by the Fusarium. Citation's ability to withstand high temperatures and high humidity helps to maintain a quality turf and balanced plant population during stress conditions. An added plus is Citation's dark green color and improved mowing qualities.

(FUSARIUM ROSEUM)

OREGON CERTIFIED BLUE TAG



For test results and information write:

Vaughan-Jacklin Corp. Bound Brook, NJ 08805 Downers Grove, IL 60515 Spokane, WA 99213 Landover, MD 20785 Jonathan Green & Sons Farmingdale, NJ 07727

Turf-Seed, Inc. Hubbard, OR 97032

"PROGRESS FROM THE GROUND UP"

Write 135 on free information card



Executive courses/p. 16

Algae/p. 20

Improvement/p. 24

olf Business/may

VOLUME 54

NUMBER 5

EDITORIAL:

RON MORRIS

RAYMOND L. GIBSON

KRIS TAPIÉ FAY

FOUNDERS

HERB GRAFFIS JOE GRAFFIS (1895-1979)

BUSINESS:

RICHARD J. W. FOSTER
Publishing director

JAMES R. BROOKS National sales manage

SHARON JONES

CLARENCE ARNOLD

NANCY WILKINSON Communications & promotion manager

CORPORATE OFFICERS:

JAMES MILHOLLAND JR.

BERNARD P. KRZYS

DAYTON MATLICK

CHARLES QUINDLEN

RICHARD J.W. FOSTER

Member:









FRONT COVER:

The beauty of the clouds reflected in this pond, draped by the distant mountains, would be obliterated by a scum of algae, as would its functional capacity.

Clippings	4
Idea file	4
News	10
Reading	12
The value of executive courses Golf Course Architect Bill Amick describes the advantages of using land for the shorter 'challenge'-type course	16
Algae The scummy appearance of this irrigation headache does not even add to aesthetics in any amount	20
Distributor's directory Save this center pull-out section and use it to pinpoint your nearest distributor.	18A-L
Maintenance improvement-a case study This article, part of a report to improve a city's golf courses, could apply to any operation in trouble	24
Designer's forum	30
Products	31
Viewpoint	33
Classified	34



GOLF BUSINESS (USPS 049210) (formerly Golfdom), published monthly and copyright 1980 by The Harvest Publishing Co., a subsidiary of Harcourt Brace Jovanovich, Inc. All rights reserved. No part of this publication may be transmitted or reproduced in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrival system, without permission in writing from the publisher. Address: 9800 Detroit Ave., Cleveland, Ohio 44102. Subscriptions sent free to qualified management personnel at golf facilities. All others, including elected club officials: \$18 per year in Ú.S. and Canada;

foreign, \$24 per year. Single copy price: \$1.50. Send subscription requests and change of address notice to above address Controlled circulation paid at Cleveland, Ohio. Postmaster: Send Form 3579 to GOLF BUSINESS, P.O. Box 6951, Cleveland,

Clippings

Brief bits of news from in and around the golf business.

A Pennsylvania research team is doing research on deer fences. An eight-foot fence is too expensive. Alternatives include a slanted fence of six-foot mesh at a height of four and one-half feet. Deer couldn't go through and the wire overhead prevented most from jumping. Because some did jump, the team is testing a higher fence of 14 wires rather than mesh. Most promising is electric fence with high tensile strength wire to prevent the deer from breaking it. The team must perform more research before it can recommend, however.

> 193 765

Green fees in the Cleveland (Ohio) Metroparks System have been raised for the 1980 season. The raise was as low as 15 cents at one course and 35 cents at two others. The three other courses ranged inbetween. Planned improvement includes rebuilding some tees, installing fairway sprinklers, blacktopping cart paths, and replacing rain shelters.

50

Boca Greens CC in Boca Raton, Florida is costing a cool \$3.8 million. Mark Bailey was hired as superintendent before construction began to work with architect Joe Lee. to incorporate maintenance into design of the course.

55

The West course at the Grenelefe Golf and Tennis Resort near Cypress Gardens, Florida, has been voted as the top course in Florida by the readers of Golfweek, the official publication of the Florida Professional Golfers Association. This is the second straight year the course has received that honor.

> 3% 50

We received a newspaper clipping from Vincent Argondezzi about a new course in Pennsylvania. The clipping began: "A new golf course—almost as rare these days in the Delaware Valley area as a cut in taxes. . .". The course is located at Mount Airy Lodge off Route 611 near Mount Pocono, Penn.

50 50 50

The New England Golf Course Superintendents Association is pround that Guy Tedesco, golf director and superintendent at New

Seabury, has been elected to the Massachusetts Golf Association, a first for a superintendent. Tedesco commented in the NEGCSA Newsletter "I'll be in there pitching for the golf course superintendent. What I hope to do is make all golfers aware of the magnitude of our job as superintendents on the basis of things over which he has no control. I'd like to change all

> NG. 503

Stanley Thompson, a noted architect in the development of golf in Canada has been inducted posthumously into the Canadian Golf Hall of Fame. When he died, in 1952 at age 58, Thompson left 200 courses, including courses in Brazil, Colombia, British West Indies and the U.S.

> 250 30

George Burgin, superintendent of the Atlanta Country Club in Georgia, has received the first combined PGA Tour-GCSAA Citation of Performance. The award was presented on the basis of Burgin's knowledge and performance within his profession, his cooperation with the PGA Tour in preparation for the Atlanta Classic, and his length of service. Burgin has been a member of GCSAA for 23 years.

59 59 59

Dan Jones, award winning

editor of The South Florida Green, official publication of the South Florida GCSA, has left Turnberry Isle CC (formerly Adventura) for Banyan CC near West Palm Beach.

50 50 50

Donald E. Padgett II has been named director of golf at Firestone CC near Akron, Ohio. Padgett will be responsible for the golf program for members and their guests.

> 56 36 563

Nick A. Siemens, a well-known Western golf course contractor, has been elected the 1980 president of the Golf Course Builders of America. Siemens heads Siemens' Contracting Inc. of Fresno,

Continues on page 8

ldea file

Hydraulic oil—a grass killer

Gary Morgan, Superintendent, Sherwood Country Club, Titusville, Florida

You say you have a problem with hydraulic oil leaks on your greensmower or tee mower and your mower operator has mowed six or seven greens or tees before he noticed it? Here is something you might be interested in

At Sherwood Country Club, the oil we used in the hydraulic systems on the Toro Greensmaster III looked clear. When a leak would appear on the mower in an area that was not readily noticeable by the operator, there was a possibility that 6 or 7 greens or tees could be mowed without knowing there was a leak.

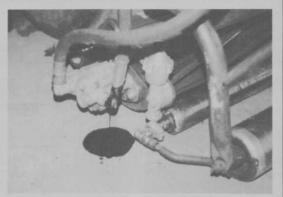
Our problem was that when there was a dew on the bermudagrass the oil blended in and could not be seen until the dew was off. And of course, by then, it was too late. This would result in 6 or 7 greens with 15 or more oil streaks on them that had to be charcoaled and soaped in to protect the grass roots. This is a very messy job to do and aesthetically looked bad for the golf course.

The greens would look terrible for weeks until the Bermudagrass would repair itself.

My Assistant Superintendent, Bill Sheffer, and I realized there was no way we could stop the leaks, but we could make the leaks noticeable to the operator. Bill Sheffer suggested a dye or stain for the oil to change the color.

We then contacted the University of Florida's Engineering Department. We were told that there were dye's and stains available from Eastman Kodak.





I contacted Eastman Kodak in Rochester, NY, and was told to contact their central Florida distributor, Fisher Scientifics, Orlando. Fisher informed me that they had a crimson red fat stain but they didn't know the application rates or anything else about the stain. I then ordered a case of stain (six 25 gram jars) to test on our mowers. After testing we agreed that in the hydraulic systems of the Toro Greensmaster III that 25 grams would work very effectively.

Since we added the stain to the mowers (11/2 years ago) we have had nothing but success.

We have had two hydraulic lines blow out on us and the mower operator, seeing the red streak on the green, has immediately stopped and shut down the mower. So instead of 6-7 greens (15 streaks/green) we now have one green with one small streak.

The stain has not affected the operation of the mower at all. There have not been any worn seals in the hydraulic system.

Some other advantages to the stain are that it shows you where you might have loose fittings on the hydraulic lines and on the hydraulic reel

The stain doesn't have the approval of Toro and Jacobsen yet for their warranty machines, but after 11/2 years it has worked fantastic for us. A lot of superintendents here in Florida are now using it in their greensmowers.

If this can help you and your operations, as it has ours, it has to be a success.

Dye Name-Sudan IV, S667

Dye Color-Crimson Red

Manufactured by: Fisher Scientific Company Fair Lawn, New Jersey

07410

Supplier: Fisher Scientifics 7464 Chancellor Dr. Orlando, FL

32809

Phone No. 305-857-3600 or 800-432-2262

When Dave Portz renovated 14 fairways with Roundup, the members played the same day he sprayed. **Dave Portz** Grounds Superintendent **Brookside Country Club** Mecungie, Pa.

Cleaning up a weedy fairway doesn't have to be a slow, messy job for you—or a hardship for your golfers.

Roundup® herbicide helps make renovation fast and efficient—as Grounds Superintendent Dave Portz discovered last year.

"If we had chosen to plow the course under, we would've had to close it," Dave says. Instead,

he applied Roundup on 14 weedy fairways, and reopened the course the same day. While Roundup worked, the members played over the dying turf, with no problems.

The members—and Dave—liked that. They were glad, too, that Roundup won't wash, leach or volatilize to injure desirable plants along the fairway. Dave simply took precautions against spray drift.

This year, reach for Roundup to control many tough weeds. It can make turf renovation fast and efficient for you—and leave a lot more playing time for your golfers.

For literature, call 1-800-621-5800, or in Illinois, 1-800-972-5858.



There's never been a herbicide like this before.



A lot of our customers have been wanting a mid-sized mower that's built tough to take it, and that's highly maneuverable at the same time.

So our engineers came up with the amazing Turfcat.

It's amazing because it's absolutely packed with features that help you get your medium-sized mowing jobs done faster and better than ever.

First, you have a choice of a 50" or 60" deck. (They're interchangeable.) Fully articulated, they closely follow ground contours so you get a smooth, even cut with practically no scalping.

Deck design lets you trim close, and also gives super clipping dispersion. The deck raises and lowers hydraulically for curb climbing and transport.

And you can adjust cutting height from 1" to 4".

Then, the three-wheel, wide track design gives the Turfcat great stability on slopes. And the foot-operated hydrostatic drive lets you steer and maneuver while changing speeds or going from forward to reverse.

How about hill climbing? It's a breeze with the power delivered by the husky 18-HP Kohler overhead valve engine. And you can expect a long engine life filled with good fuel economy.

Plus, the Turfcat is quiet. All controls are within easy reach. And it might very well be the most comfortable riding rotary in the world.

Ask your Jacobsen distributor for a Turfcat demonstration. And have him explain about the many fine features that customers want.

The more you listen to what he has to say, the more you'll know we've been listening.

We hear you.



Jacobsen Division of Textron Inc.

TURF MANAGER'S pH SCALE

TURF DISEASE HARBORING RANGE

CELLULOSE (THATCH) **DECOMPOSING** RANGE

4.5 5.0 5.5 6.0 6.5 7.0

7.5

8.5

8.0

THATCH **BUILD UP** RANGE

BEST FOR SEEDING



TEST SOIL & THATCH LATERALLY

HOW? pH COMPUTER OLD BILL LYONS CANAL FULTON, OHIO 44614 \$21.00 pp

Write 118 on free information card

MOSQUITOES BOTHERING YOUR CUSTOMERS?

FACT: * Tossits® are specially constructed gelatin capsules containing high concentrations of insecticides combined with special oils which assure a fast "spread" over water surfaces. Within minutes after contact with water of normal temperature, they rupture, covering the surface with an active chemical film that quickly destroys mosquito larvae.

FACT: • The cheapest and most effective way to control mosquitoes is by

· No detailed continuing expensive training program needed.

 Tossits[®] are biodegradable—insecticide is biodegradable. They do not harm the environment.

FACT: do not harm the environment.

NO MOSQUITOES IMMUNE TO TOSSITS®. Our formula, consisting of a combination of pyrethrum and piperonyl butoxide gives a 100% kill of all species of mosquito larvae.

NEW PACKAGING for convenience. TOSSITS[®] are now packaged in individual teflon coated aluminum cans containing 40 capsules each with 25 cans or 1,000 TOSSITS[®] making up a unit case.



After releasing approximately 90% of its contents. The balance of chemical insecticide in the Tossit[®] will be released within a few hours as capsule gradually disintegrates, providing additional larvicide on the surface.







U.S.A. Phone: 216/391-5047 4811 Carnegie Avenue, Cleveland, Ohio 44103

Write 124 on free information card

Clippings from page 4

California which has built more than 80 golf Courses. In addition, Carl Hedlund, sales representative for Advanced Drainage Systems Inc., was reelected as secretary and James J. Kirchdorfer, President of ISCO Inc., was reelected as treasurer.

> 53 352

Professor of Agronomy and Extension turf specialist John F. Shoulders has retired from the Virginia Polytechnic Institute and State University after 28 years of service. Shoulders was named a fellow in the American Society of Agronomy in 1977, the highest honor that organization bestows upon its members. Shoulders plans to remain in Blacksburg and maintain an interest in turf programs.

> 3% 56

The 1980 Yearbook and Directory of the Golf Course Builders of America is now available without charge from the association's headquarters, 725 15th St., N.W., Washington, D.C. 20005. The 52-page booklet lists the names of GCBA golf course contractors, their qualifications and identifies the golf courses they have constructed throughout the country.

35

The Proceedings of the Wastewater Conference, which includes 20 papers on the use of effluent from sewage treatment plants and wastewater from other sources for irrigation of golf courses, are available for \$10 from the American Society of Golf Course Architects Foundation, 221 N. LaSalle St., Chicago, III. 60601.

> 352 353

Bibliography and Literature Review on Sewage Utilization for Turtgrass Purposes has been completed by A.E. Dudeck and C.E. Donoho, University of Florida, together with A.J. Turgeon, O.L. Heinzen, and G.E. Stout, University of Illinois, under a grant from The Toro Company administered by the U.S. Golf Association Green Section under a special project program of the American Society of Golf Course Architects Foundation. Copies are available at a cost of \$10 from The ASGCA Foundation, 11 South La Grange Road, La Grange, IL 60525.

5% 5%

Alcohol fuels continues to be an important topic. A 160-page manual titled Fuel from Farms: A Guide to Small-Scale Ethanol Production is available from the U.S. Department of Energy, P.O. Box 62, Oak Ridge, TN 37830, free of charge. Another source of

information is the National Alcohol Fuels Information Solar Energy Research Institute, 1617 Cole Boulevard, Golden, CO 80401. phone 800/525-5555.

Proceedings of the 1979 Seminar on Biogas and Alcohol Fuels is available for \$35 from Compost Science/Land Utilization, Box 351. Emmaus, PA 18049. Clemson University held a seminar entitled: Alcohol Fuels for Transportation and Industry during the latter part of April. We will keep you posted when proceedings are available.

> 50 36 36

The American Society of Golf Course Architects has produced a slide presentation entitled The Modern Golf Course. The film traces the historical traditions of golf in the U.S. and how they have influenced today's courses. Major emphasis is placed on master planning, and construction techniques which are utilized in new courses and remodeling projects. To schedule a presentation, simply write, on company or organization letterhead stationery, to The American Society of Golf Course Architects, 221 N. LaSalle St., Chicago, IL 60601.

50 50 50

Banner chewings fescue has been awarded a Canadian Liscense by Agriculture Canada, Plant Products Division in Ottawa on application by Oseco Inc. of Brampton, Ontario. Banner has shown outstanding potential in Ontario research projects.

352

Boots Hercules Agrochemicals Company has a new insecticide. Deltic[™], to control ticks, fleas and clover mites. Deltic is a restricteduse pesticide and comes as a liquid which can be mixed and applied in convention sprayers, according to Dr. James Rawson, product manager. The chemical is also compatible with most common pest control materials.

- 56

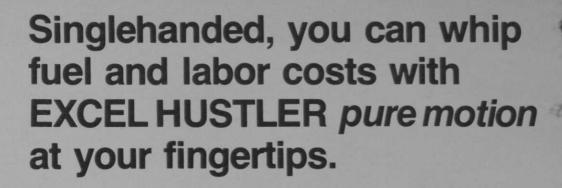
The Massachusetts Turf Field Day at the South Deerfield Station will be held June 25 with a rain date of June 26.

> 36 3/2

The 1980 Rutgers Turfgrass Research Day in New Brunswick, New Jersey will be August 6, starting at 10:00 a.m.

> 50 50 50

The Kentucky Turfgrass Council will host its annual turfgrass conference and field day in Richmond, October 7-9. There will be a preconference golf tournament on the 7th with a night discussion of turfgrass research.





means Mower-and More-every season.

Two hydrostatic pumps transmit direct to drive wheels instantly in response to fingertip touch on twin hand levers. Dual pumps work only half as hard, last many seasons longer for added value and less downtime. But there's More: Instant pure motion moves the big mowers easily around trees, park benches, markers, and other mowing headaches. EXCEL HUSTLER owners mow More acres per hour, More grass per gallon, More years per mower!

The Mower delivers a super cut on fine turf or rough. Choose air-cooled 275 or 285; liquid cooled 295. Standard or heavy duty 72" rotary, 54" rotary,

More turf and grounds attachments: Cultivator, Catcher/Compactor, Edger, Dozer Blade, Rotary Broom, amazingly efficient Snow Thrower. Add ROPS; enclose cab for winter comfort; Tilt-Deck Trailer for transporting.

And More! Factory trained service and parts through your EXCEL HUSTLER Distributor. Write or call for his name and free literature, or watch for a field demo.

GSA: GS-07S-04916 HUD: OPH (CO)m-2930





Mower and More, the choice of the pros.

EXCEL **Turf & Grounds Equipment**

Excel Industries, Inc. • Box 727 • Hesston, Kansas 67062 • (316) 327-4911 • (800) 835-3260

News

EPA wants money for 2,4,5-T disposal

While the fate of 2,4,5-T has not been officially resolved, EPA has issued a 'revised request for proposal' for disposal of 30 million pounds of Silvex-containing fertilizer. The request states that "the contractor shall weigh and safely dispose of 30,000,000 pounds (approximately 30,430 cubic yards) of dry granular lawn fertilizer materials which contain Silvex and its contaminant TCDD in a permanent manner that will comply with all applicable laws and regulations and so as to avoid unreasonable adverse effects on the environment. Silvex generally contains the levels of approximately 20 parts per billion and is a hazardous material (sic)." \$2 million is available for this disposal during the current EPA fiscal year. EPA has estimated it will need at least \$4 million.

FTA offers A/V turf program

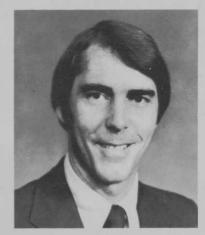
The Florida Turfgrass Association now has an audio visual library available to members featuring educational information about nematodes, ornamental insects, turf insects, and turfgrass diseases.

The ornamental insect slide set describes sucking insects, mites, chewing insects, leaf miners and boring insects. Detailed information is relayed regarding life cycles, hosts and symptoms, and timing of major infestations.

The disease set discusses 12, including dollar spot, pythium, fairy ring, leaf spot, rust and slime

molds.

For more information, contact the Florida Turfgrass Association, 1520 Edgewater Dr., Ste. E, Orlando, FL 32804, or call 305/425-1581.



Brooks joins Musser board

James R. Brooks, National sales manager for GOLF BUSINESS magazine, has joined the board of the Musser International Turfgrass Foundation. Brooks, in accepting the post, said "I am sincerely flattered by the Board's confidence in my abilities, and stand ready to assist the Musser Foundation in all endeavors to build a stronger turfgrass profession and industry." The Musser Foundation assists research by providing grants and is seeking to establish a long term funding system through financial investments. Guided by Dr. Fred Grau, the board needs the contributions of all interested in upgrading the management of fine

First of three PGA courses open

The 2,340-acre PGA National Resort Community was officially opened, and the first of three





The Canadian Golf Superintendents Association recently elected a new Board of Directors and officers. They are, standing, from left to right: Alberta Director Walter Gooder, Edmonton CC; Secretary-Treasurer Bill Glashan, Whirlpool GC; Manitoba/Saskatchewan Director Helmut Kopp, St. Charles G&CC; Maritime Director Jack Fairhurst, Old Ashburn GC; Ontario Director Steve Miller, Burlington G&CC; and British Columbia Director Bob Wick, Capilano G&CC. Seated from left to right are: Quebec Director Jim Wilson, The Country Club of Montreal; President Ashley Le Gey, Gallagher's Canyon Golf Resort; Vice president Randy Scott, Hillsdale G&CC; and Immediate Past President Robert T. Heron, Markland Wood CC.

championship courses dedicated and opened for play. The course was named "The Haig" in honor of golfing great Walter Hagen, who won two U.S. Opens and both the British Open and the PGA Championship four times from 1914 to 1929. The course is 6,973 yards long and was designed by George and Tom Fazio.

The second course, the Tournament Championship Course, is now under construction and is expected to be completed by the end of the year. The \$2.6 million PGA headquarters is also expected to be finished late this year.

Evergreen bagworm will hit Texas again

The evergreen bagworm, the most damaging of 16 bagworms, will again be a problem in Texas, according to Dr. Robert Crocker, researcher at the Texas Ag

Experiment Station, and H.A. Turney, entomologist with the Texas Ag Extension Service. Although the evergreen bagworm seems partial to evergreen ornamentals such as arbor vitae and junipers, both entomologists agree that it will also attack plums, sycamores and a bewildering range of Texas plants, if conditions are right.

When natural predators fail to control the populations, Crocker and Turney recommend hand-picking where only a few low-growing plants are involved. Some of the more effective insecticides on the market include Sevin and malathion. Control is better with an application following egg hatch in the spring and early summer while the bagworms are young.

Dipel and Thuricide, commercial preparations of a bacterium, offer biological control. The bacterium causes paralyzation of the worm's stomach after feeding. Death results in several hours.

Lofts, Southern Turf form Sunbelt Seeds, Inc.

Sunbelt Seeds, Inc., a new company based in Tucker, Georgia, will specialize in marketing programs to the southern recreational turf market. Sam Ellington, President of Sunbelt Seeds, explained how his company's unique resources will benefit the sun belt. "Our new company is in an incomparable position due to the proven service and expertise of the two parent organizations. Through the benefit of a year-round product emphasis,

we can supply the Southern market with leading varieties of turf-type seed at very competitive prices and with superior service. Our clientele can refer their unique regional turf problems to our experienced agronomists for solutions."

Pictured at left, announcing the formation of the company are, left to right, standing: John Morrissy, Rich Hurley, Jon Loft; seated, left to right: Peter Loft, Sam Ellington and Tim Bowyer.