



Roundup® stops tough weeds from the first tee to the clubhouse.

Tough weeds can be a problem all over your golf course. Around the greens. In fairways. In and around sandtraps. Along cart paths and driveways. Near the clubhouse. But there is one herbicide you can use in all of these weedy areas—Roundup® herbicide.

No other herbicide is more effective—and more versatile—than Roundup for control of many tough emerged weeds. Roundup is inactive in the soil. It won't wash or leach out of treated areas to injure desirable vegetation. Yet when Roundup is sprayed on the leaves of actively growing weeds, it goes right down to the

roots, to control the entire plant. So treated weeds won't grow back. And don't forget Roundup can be used around your tennis courts and other recreational areas too!

See your chemical supplier soon for your supply of Roundup. It just might be the solution to your golf course weed control problems.

Monsanto



Nothing works like Roundup.



FOR LITERATURE
CALL TOLL-FREE
1-800-621-5800
In Illinois, 1-800-972-5858

ALWAYS READ AND FOLLOW THE LABEL FOR ROUNDUP.
Roundup® is a registered trademark of Monsanto Co.
RUP-SP1-107D © Monsanto Co. 1981

Write 114 on reader service card

GB

Contents

June-July/1981

Volume 55/Number 6

Feature Articles

The seed harvest forecast <i>Golf Business has polled all the major growers</i>	8
C-15 investigation suggests bacteria <i>Researchers at Michigan State have isolated bacteria in the xylem</i>	14
Speaking of Mowers	
<i>Golf Business explores the philosophies behind the manufacturers</i>	18
Return to Brookside — total renovation <i>Dave Portz has now gotten rid of annual bluegrass on the entire course</i>	20
Water can be functional and beautiful <i>French and Korbobo inspire with their visions of water on the course</i>	28
Energy management saves <i>Charles Stine describes how a computer turns things on and off to conserve electricity</i>	34
Controlling Bermuda invasion into bentgrass <i>A tough problem, but Bill Knoop describes methods of control</i>	38
Integrated Pest Management for turfgrasses <i>Dr. Lucas at North Carolina State University reveals existing practices</i>	43
Selecting Equipment in the South <i>Superintendents and industry officials offer tips</i>	48

Departments

Clippings	4	New products	50
News	6	Viewpoint	52
Idea file	6	Classified	54
Publisher's point	7	Advertiser Index	54
Change of address	35	Sales offices	54

EDITORIAL:

RON MORRIS, Managing editor
RAYMOND L. GIBSON, Graphics director
KRIS TAPIÉ FAY, Graphics assistant

FOUNDERS:

HERB GRAFFIS
JOE GRAFFIS (1895-1979)

BUSINESS:

A. VAL BRADLEY, Group Publisher
DAYTON H. MATLICK, Publisher and
General manager
JAMES R. BROOKS, Associate publisher and
National sales manager
JEFF LAPIN, Circulation manager
DAVID HARMAN, Research manager
PATRICIA CARRICK, Advertising production

CORPORATE OFFICERS:

A. VAL BRADLEY, President
DAYTON MATLICK, Vice president
CHARLES QUINDLEN, Vice president

Member:



GOLF BUSINESS (USPS 049210), published monthly except a combined issue in June and July and copyright® 1981 by The Harvest Publishing Company, 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 retrieval system, without permission in writing from the publisher. Address: 7500 Old Oak Blvd., Middleburg Heights, Ohio 44130. Subscriptions sent free to qualified management personnel at golf facilities. All others, including elected club officials: \$18 per year in U.S. and Canada; foreign, \$24 per year. Single copy price: \$1.50. Send subscription requests and change of address notice to above address. Second class postage paid at Cleveland, Ohio. Postmaster: Send Form 3579 to GOLF BUSINESS, Circulation Dept., 7500 Old Oak Blvd., Middleburg Heights, OH 44130.

GB

Clippings

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

A fisheries specialist with the Texas Agricultural Extension Service recommends fertilizer to increase fish production in sport-fishing ponds. Billy Higginbotham cautions that aquatic weeds must first be eliminated. If the pond is overpopulated, more pounds will still result, however, size will remain small. A 20-20-5 fertilizer, at 100 pounds per surface acre every two weeks, should make a shiny object invisible, 18 inches under water. If not, reduced rate applications may be necessary to restore the phytoplankton bloom, the main link in an aquatic food chain.

The Wisconsin Turfgrass Association has been established to encourage turfgrass research specifically directed to Wisconsin growing conditions and problems. Plans are underway to work closely with the University of Wisconsin to upgrade turfgrass research in the state of Wisconsin. Dr. Gayle Worf, extension plant pathologist, has agreed to organize the initial efforts. Charter membership application will continue until October, 1981. Information and applications can be received from Tom Harrison,

Secretary, 1218 Winn Trail, Madison, WI 53704.

Golf-orientated regional publication and newsletter entries are being accepted for the third annual **Harry C. Eckhoff Award** contest. Nationally circulated golf magazines and publications by national golf organizations and associations will be excluded this year. Entry deadline is October 31, 1981 and may include publications dated the previous 12 months. All entries should be sent to the Eckhoff Award Contest, National Golf Foundation, 200 Castlewood Drive, North Palm Beach, FL 33408.

Scott Benty is the golf course superintendent at Lake Placid Club Resort in Lake Placid, New York. Scott is owner of Benty's Landscape Design and Greenhouses in Lake Placid. He has been golf course assistant at the Lake Placid Club Resort, Saranac Lake Golf Club, Denver Country Club, and assistant superintendent at Winged Foot Golf Club.

Lloyd McKenzie has left Augusta National as of May 1 and is superintendent of Quail Creek Country Club in Naples, Florida. **Billy Fuller**, former superintendent



Newly elected officers of the Pennsylvania Turfgrass Council are, above from left to right: George Morgan, Wildwood Golf Club, President; Christine King, Executive Secretary-treasurer; J. Craig Reinhardt, Pine Valley Golf Club, First Vice president; and Michael Rothenberg, West Shore Country Club, Second Vice president.

at Kiawah Island Golf Links in South Carolina, has assumed the superintendent position at Augusta.

Beaver Creek now has **Daniel I. Gieseler** as superintendent. The Robert Trent Jones, Jr. course is not scheduled to open until 1982. Meanwhile, Dan is working bugs out of the irrigation system, resetting some 744 sprinkler heads. About a thousand aspen and evergreen trees are scheduled to go in in late summer.

Frank Underwood, president of the Golf Course Builders of America, scored three holes-in-one during a 30-day period. Frank is currently serving his third term as president.

As proud as we are of all golf courses, we're just naturally a little biased towards our home state of Ohio. We had two courses in the top 50 public courses and now our **Governor James A. Rhodes** has been named recipient of the 1981 Donald Ross Award, presented annually by the American Society of Golf Course Architects. Gov. Rhodes initiated the first two public courses in Columbus while mayor there and encouraged development of five courses in Ohio's state parks while governor. **Dick Phelps**, president of ASGCA, told Golf Business that "Gov. Rhodes is an outstanding example of an administrator who recognizes the importance of recreational facilities for the general public and is willing to work for their construction."

Thorne G. Aucther's nomination by **President Reagan** has been confirmed by the Senate. Aucther is now Assistant Secretary of Labor for Occupational Safety and Health and the leader of OSHA. Formerly a Florida construction executive, Aucther has stated plans to improve management of OSHA and wishes to develop a cooperative approach involving labor, management, and government working together to improve job safety and health.

Nicholas B. Clifford has been
Continues on page 22

You just can't buy a better greens mower.



It's been proven time and again, day after day, acre after acre. You just can't buy a better cutting greens mower. For a very convincing demonstration, call your Jacobsen Distributor.

JACOBSEN
TEXTRON

Jacobsen Division of Textron Inc.

Jacobsen: You just can't buy any better.

Write 170 on reader service card

INDUSTRY

ISI will market NAPB's turfgrass seed

Effective June 1, International Seeds, Inc. (ISI) will market North American Plant Breeders' turfgrass seed, including Regal perennial ryegrass, Enmundi and Enoble Kentucky bluegrasses and the Celebrity grass seed mixtures. The move will offer new inventory and shipping economies to distributors as a result of mixed-trucklot advantages offered by ISI's even broader line of seed. ISI varieties include Derby, Elka and Hunter perennial ryegrasses, Dixie green overseeding mixture, Highlight and Checker chewings fescues, Ensylva creeping red fescue, Merit, Vantage and Scenic Kentucky bluegrasses and Sabre *Poa trivialis*, plus Houndog, ISI's new turf-type tall fescue.

Hal Dickey, formerly with NAPB, will also join ISI. He will remain in the Midwest (Shawnee Mission, Kansas) and will work with most of the same distributors and products as in the past.

PESTICIDES

Mobay forms new Specialty Chemicals Group

The Agricultural Chemicals Division of Mobay Chemical Corporation has formed a new Specialty Chemicals Group to market the firm's expanding line to the professional turf, landscaping,

nursery, PCO and other specialty chemical markets. Heading the new group is Allen Haws as National Sales Manager. He moves from the Agricultural Chemicals Division where he was Sales Control Manager.

At present, the group will represent Baygon®, Baytex®, and Dylox® insecticides, Dyrene®, Lesan® and Bayleton® fungicides, Nemacur® nematicide, and Sencor® herbicides. Mobay currently has other turf protection chemicals undergoing research and is expected to register them for commercial usage soon.

ASSOCIATION

LIGCSA appoints Reilly as new Executive Secretary

Edward Fufaro, President of the Long Island Golf Course Superintendents Association, has announced that Ann Reilly will be the Executive Secretary of the association. Ann joins LIGCSA with experience in turfgrass and golf as she is also Executive Secretary of the New York State Turfgrass Association and a regular contributor to several related trade magazines. In addition, she is the Association Executive for five groups in the nursery and floriculture fields.

An active association, the LIGCSA sponsors monthly meetings, publishes the monthly "Supernews", conducts an annual Field Day and supports turfgrass research and education through the awarding of grants and scholarships. Write LIGCSA at 210 Cartwright Blvd., Massapequa Park, NY 11762.

Governor James A. Rhodes of Ohio (right) accepted the sixth annual Donald Ross Award from President Dick Phelps of the American Society of Golf Course Architects at the group's recent annual meeting in Colorado Springs.



TURFGRASSES

Tifway II bermuda released to certified growers

Tifway II is being released to certified growers who have their land inspected and approved by their State Crop Improvement Association. Actual Foundation stock is limited, but Georgia Crop Improvement Association registered stock is available to plant certified acreages.

Tifway II is an improved mutant of Tifway turf bermudagrass developed cooperatively by the U.S. Department of Agriculture, SEA/AR, the Georgia Coastal Plain Station, the U.S. Golf Association Green Section, and the Department of Energy. Numerous tests have shown



The Idea File

David C. Harmon
Golden Horshoe GC
Williamsburg, Virginia

Mower maintenance tag



The mechanic at Golden Horshoe keeps track of any work done on mowers via a small tag attached to the mower. In this manner, he can tell when it was last lapped or sharpened. The waterproof sleeve protects the tag and a quick check will tell when last maintenance was performed.

Publisher's Point



that Tifway II looks like Tifway, with the same desirable characteristics, but makes a denser, more weed-free turf, is more resistant to rootknot, ring, and sting nematodes, is more frost tolerant, exhibits a little better quality, and often greens up a little earlier in the spring. It is the combination of these traits, none of which can be used for identification, that warrant the release of Tifway II.

TURFGRASSES

Pickseed grasses get plant variety protection

Pickseed West, in Tangent, Oregon, has received Plant Variety Protection for America Kentucky bluegrass, Agram chewings fescue, and will begin marketing Exeter Colonial Bentgrass, which has been out of production for some years.

Exeter, developed at the University of Rhode Island under the direction of Dr. Richard Skogley, has been regarded for many years as a low maintenance turfgrass. It is characterized by medium dark green color, very fine leaf blade and has excellent winter hardiness and disease resistance.

Agram was selected and developed in Holland. It is an improved chewings fescue with excellent turf quality and medium dark color. It will make an excellent component in shade mixtures, according to Mike Robinson, Vice president of Pickseed West.

America is a low-growing, fine textured turf-type bluegrass with excellent density and dark green color. It performs well in both full sun and in moderate shade, Robinson adds.

FERTILIZER

New fertilizer process can cut volatilization, cost

A new fertilizer material should be available soon that will save energy, reduce nitrogen losses, and cut costs. A process developed and patented by scientists at the Texas Agricultural Experiment Station has many benefits. It allows universal use of urea, the cheapest form of dry fertilizer and will significantly cut losses from leaving the fertilizer on

Reagan administration statements professing a more positive and open attitude for the concerns of business and industry seem to be more than just bureaucratic rhetoric. Remarks by several administration officials and congressmen during the recent National Club Association's Legislative Conference gave Ron Morris and me a distinct impression that the new administration is working to change several programs of concern to business and industry, particularly in regulatory matters. We, also, left the Washington Conference convinced that the present administration is much more open and receptive to hearing from individuals and groups with specific concerns and problems; even small industries like private clubs and turf maintenance.

At the conference, several administration officials reiterated Reagan's strong commitment to reducing federal programs and interference with the private sector. As one official said, "We're determined in our efforts to reduce federal spending and bring about needed regulatory reform in all sectors of the economy. Governmental agencies are going to change from their present adversary role. The American public and business have been viewed as the enemy long enough in Washington." Though not commenting on specific changes, another official indicated that the administration was working diligently to bring about needed revisions of OSHA and EPA regulations. President Reagan has

the soil until rain or irrigation carries the nitrogen into the soil.

The process uses calcium or magnesium nitrates or chlorides to stabilize volatile nitrogen fertilizers, according to Dr. Lloyd Fenn, the soil chemist who developed the process. "The urea, at 90°F, when left on the

expressed two basic principals to be used as guidelines when assessing new federal regulations and regulatory reform. The first principal is to regulate only if there is a definite and proven need. The second guideline principal is to make certain that the benefits of the regulation outweigh the cost.

The NCA's legislative conference not only provided a very informative legal and legislative update of major issues affecting the private club industry, but served as a most effective forum for information and feedback between government and industry. I think its time for those of us in the turf maintenance industry to take greater advantage of the changing government attitudes in Washington and better communicate our concerns and opinions; both individually and collectively. A legislative update conference similar to NCA's, could be of significant value to our industry. It could serve to better identify the major issues confronting us, and demand sharper focus on our problems and concerns by the governmental officials invited to participate. Until such a conference materializes, each of us has the responsibility of making sure that our respective congressmen are kept informed of our principal needs and concerns.

soil in the presence of calcium, remains to a large extent in the urea form for two to three weeks instead of the present one to two days with ordinary urea," Fenn states. The new fertilizer will soon be produced in liquid form by the Stroller Chemical Company in Houston.

The harvest forecast; Fall seed availability

Once again, we are tempting Mother Nature by presenting our second annual turfgrass seed harvest availability outlook. Comments from most growers indicate that conditions are favorable for a good harvest. Rust has hit the fields a little earlier than usual, but no more severely than usual. The fields in northern Minnesota need rain. Figures for seed grown there could fluctuate depending upon how much (or little) the area receives.

Demand for most of the proprietary grasses is increasing significantly. This could be due in part to an increased demand from our industry, however, the homeowner market demand is expected to increase dramatically, as more and more people stay close to home and tend to their yards.

Again, we remind you that the harvest is subject to many factors. Rain, at the wrong time, can delay harvest, or if the seed is swathed on the ground, it can beat the seed off where it is not recoverable. Until the seed is in the bag, this is a forecast. However, if there is a significant deviation from these predictions, we will let you know through the magazine.

The following information was supplied by representatives of the seed companies listed at the end. The figures are percentages of anticipated demand that the representatives feel the harvest of a variety will allow them to meet. If the variety that you are planning to purchase seems to be low, you should act promptly to secure a source for your needs.

The following seed companies participated in this forecast:

Agriculture Service Corporation

Salem, Oregon

E.F. Burlingham & Sons

Forest Grove, Oregon

Great Western Seed Co.

Albany, Oregon

Jacklin Seed Company

Post Falls, Idaho

J&L Adikes, Inc.

Jamaica, New York

International Seeds Inc.

Halsey, Oregon

Lofts Pedigreed Seed, Inc.

Bound Brook, New Jersey

Northrup King Company

Minneapolis, Minnesota

The O.M. Scott & Sons Company

Marysville, Ohio

Oseco Inc.

Brampton, Ontario, Canada

Pickseed West, Inc.

Tangent, Oregon

Turf-Seed, Inc.

Hubbard, Oregon

Warren's Turf Nursery

Palos Hills, Illinois

Ron Morris

Kentucky bluegrass

Adelphi

91%

America

100%

Aquila

75%

A-34(Bensun)

25%

Banff

75%

Baron

100%

Birka

100%

Bonnieblue

100%

Bristol

100%

Cheri

100%

Common

100%

Columbia

100%

Eclipse

90%

Enmundi

100%

Fylking

100%

Glade

98%

Georgetown

Ltd.

Majestic

100%

Merion

100%

Merit

100%

Newport

100%

Nugget

75%

Parade

93%

Park

65%

Pennstar

100%

Ram I

100%

Rugby

60%

Scenic

100%

Shasta

100%

Sydsport

100%

Touchdown

85%

Vantage

100%

Victa

100%

Wabash

50%

Fescue

Agram chewings

75%

Alta common tall

100%

Atlanta

100%

Banner

100%

Beaumont meadow

10%

Biljart

100%

Checker chewings

100%

Chewings'

100%

Clemfine tall

Ltd.

Creeping red

100%

Dawson red

75%

Ensylva creeping red

100%

Falcon tall

40%

Fawn tall

100%

Fortress creeping red

100%

Highlight chewings

100%

Houndog tall

10%

Jamestown

100%

K-31 tall

100%

Koket chewings

100%

Olympic tall

Ltd.

Pennlawn red

100%

Rebel tall

10%

Reliant hard

Ltd.

Ruby red

70%

Scaldis hard

70%

Shadow chewings

Ltd.

Shannon tall

Ltd.

Tournament hard

50%

Waldina hard

Ltd.

Ryegrass

Annual

100%

Barry

100%

Belle

100%

Birdie

100%

Blazer

80%

Caravelle

100%

Citation

100%

Common perennial

100%

Dasher

80%

Delray

80%

Derby

100%

Diplomat

100%

Elka

75%

Fiesta

80%

Goalie

80%

Hunter

100%

Jackpot

50%

Loretta

100%

Continues on page 32

**Now,
one-shot
white grub control.**



New

