

BOOKSTORE



375 - SITE DESIGN AND CONSTRUCTION DETAILING by Theodore D. Walker
An introduction to the subject of site design and construction detailing. Focus is on design implementation. Discusses the nature of construction drawings. Presents the characteristics, origin and nature of construction materials. **\$24.00**

355 - PERSPECTIVE SKETCHES by Theodore D. Walker
A reference source of ideas, media use, styles and techniques. Grouped by subject matter. Illustrates technique for vegetation, vehicles, play equipment and recreation facilities, people, animals, etc. **\$19.50**



365 - PLAN GRAPHICS by Theodore D. Walker
Focuses on plans, elevations, sections and lettering. Provides many different examples to be used as guidelines in personal soil experimentation. Includes graphic techniques for site analysis and design concepts. **\$21.00**



380 - RESIDENTIAL LANDSCAPING I by Theodore D. Walker
Provides an in-depth discussion of the planning, design and construction phases of residential landscaping. Illustrated with the work of professional landscape architects. Covers everything from analyzing the site to constructing the landscape. **\$22.50**

ADDITIONAL TITLES

- 410 - DISEASES & PESTS OF ORNAMENTAL PLANTS \$29.95
- 660 - DISEASES OF SHADE TREES \$23.50
- 610 - DISEASES OF TURFGRASS \$30.00
- 480 - GREENHOUSE MANAGEMENT FOR FLOWER & PLANT PRODUCTION \$15.35
- 490 - GREENHOUSE OPERATION & MANAGEMENT \$19.95
- 350 - HANDBOOK OF LANDSCAPE ARCHITECTURAL CONSTRUCTION \$48.50
- 360 - HOME LANDSCAPE \$24.95
- 510 - HORTUS THIRD \$99.50
- 690 - INSECTS THAT FEED ON TREES & SHRUBS \$47.50
- 370 - LANDSCAPE OPERATIONS: MANAGEMENT, METHODS & MATERIALS \$19.95
- 545 - MODERN WEED CONTROL \$21.50

- 700 - THE PRUNING MANUAL \$14.95
- 710, 720 - SHRUB IDENTIFICATION \$18.00 hardcover, \$8.00 paperback
- 780 - TREE IDENTIFICATION \$9.95
- 760 - TREE MAINTENANCE \$35.00
- 770 - TREE SURGERY \$18.95
- 650 - TURFGRASS MANAGEMENT \$19.95
- 630 - TURFGRASS SCIENCE & CULTURE \$25.95
- 640 - TURF IRRIGATION MANUAL \$22.95
- 620 - TURF MANAGEMENT HANDBOOK \$14.65
- 560 - WEED SCIENCE \$24.50
- 570 - WESTCOTT'S PLANT DISEASE HANDBOOK \$34.50
- 580 - WYMAN'S GARDENING ENCYCLOPEDIA \$29.95

CLOSEOUTS

ORDER THESE TITLES AT SPECIAL REDUCED PRICES!

- 430 - FLOWER & PLANT PRODUCTION IN THE GREENHOUSE \$13.60
- 440 - FUNDAMENTALS OF ENTOMOLOGY & PLANT PATHOLOGY \$18.50
- 450 - GARDENING IN SMALL PLACES \$6.75
- 460 - GREENHOUSE ENVIRONMENT \$21.20
- 500 - HORTICULTURAL SCIENCE \$18.80
- 540 - INTRODUCTION TO FLORICULTURE \$25.00

Mail this coupon to: Book Sales, Harcourt Brace Jovanovich Publications
One East First Street, Duluth, MN 55802

Name _____
Street Address _____
P.O. Box Number _____
City/State/Zip _____
Phone Number _____
Signature _____ Date _____

Please send me the following books. I have enclosed payment* for the total amount.
Please charge to my Visa, Master Card or American Express (circle one)
Account Number _____ Expiration Date _____

BOOK NUMBER AND TITLE	QUANTITY	PRICE	TOTAL PRICE

*Please add \$3.00 per order plus \$1.00 per additional copy for postage and handling.

(postage & handling)

Please allow 6-8 weeks for delivery
Prices subject to change.
Quantity rates available on request

Total Enclosed _____

WT72

American golfers number 17,050,000

According to the National Golf Foundation, there are more than 17 million golfers in the United States. In its annual statistical summary, *Golf Facilities in the United States*, NGF noted that an estimated 13.65 million golfers play over 15 rounds of golf annually. An additional 3.4 million play 1-14 rounds per year.

"This year's report depicts golf as growing in 1981," said Research Director Sandra Eriksson. "With continued and combined efforts by course operators/owners and the industry, golf will quite possibly further expand its recreational market through this decade."

The report analyzes in depth the number of golf courses, number of golfers and number of rounds played. There are currently 12,894 golf courses in the U.S., with a 13% growth in the number of new courses opened in 1981. Golfers played some 395 million rounds last year, an increase of 10%.

Superintendents average 41-18-8

Those numbers should have particular significance to golf course superintendents. According to the Golf Course Superintendents Association of America's demographic and market research program, the average Class "A" GCSAA member is 41 years old. He has full grounds maintenance responsibility at an 18-hole private golf course and has been there for almost 8-1/2 years.

The average superintendent has worked at two clubs previously and is college-educated. He plays over 21 rounds of golf during the year and in between landscaping chores maintains a 10-stroke handicap.

In other GCSAA news, John Schilling, formerly GCSAA director of marketing and sales, has rejoined the association as a consultant. Schilling will serve as the head of the conference and show department while GCSAA searches for a permanent director.

GCSAA was also the recent beneficiary of some good fortune generated at this year's Masters Tournament. The Augusta National Golf Club, the tournament host, contributed \$2500 to the association's Scholarship and Research Fund. "It is our hope that future Masters Tournaments will be sufficiently successful to enable us to make such contributions every year," wrote Club Chairman Hord Hardin in a letter accompanying the contribution.

NGF names Smith president

The National Golf Foundation has appointed Frank Smith Jr. as president. Smith was formerly president of CBS Sports. "I come to the Foundation not as a golfer but as a businessman who has been very successful in selling air time," said Smith. From 1966 through 1977 when Smith was vice president in charge of sales and operational resources at CBS, advertising revenues increased from \$250 million to more than \$1 billion annually. "I intend to pursue with vim and vigor the charter of the National Golf Foundation—to enhance the game of golf."

Smith's objectives in taking over as president are to devise and develop programs which will make golf more popular, to raise funds necessary to support those programs; and bring greater unanimity among all segments of golf. Former NGF President James Long, Spalding Sports Worldwide, has been named chairman of the NGF board. Smith is the first full-time salaried president of the National Golf Foundation, which was founded by Herb and Joe Graffis.

isms, to design better management procedures for pest control and to create a better understanding of the delivery system by analyzing the basic processes of microclimate, crops, culture and residues.

The initial research efforts of the group include turf soybeans, corn, field and green house vegetables. They will be working with conventional insecticides, fungicides, plant growth regulators, nematicides and herbicides as well as the newer fourth generation pest control agents.

According to Hall, "the pesticides we are now using have more active molecules which means that less chemical is needed but more precision is required. Changes in the registration requirements, environmental attitudes and the cost of chemical research have had a great impact on the incentives for the agricultural industry to continue research."

CHEMICALS

Union Carbide provides Sevin hotline

Information on Sevin carbaryl insecticide can now be obtained by dialing 800-334-9745, at any time of the day. This telephone service has been installed as a resource for those dealing with Sevin who have questions about its use, health and environmental impacts.

The Union Carbide Agricultural Products Company has developed this service strictly for professionals. They are not equipped to handle a large number of calls from the general public and would appreciate cooperation in not releasing the number to mass media or product end users.

SOD

Greentree Sod owners join Pacific Green/Nunes

Pacific Green/Nunes has added Jack and Peggy Gribben to its staff as division managers. The former owners and operators of Greentree Sod & Soil, the Gribbens will now apply their expertise in retail to the Pacific Green/Nunes markets. Jack will be in the position of products manager and Peggy has been appointed retail advertising and sales promotion manager.

The Gribbens purchased Greentree Soil & Sod in 1978 and developed the

Continues on page 14



A body of water is a living thing...

A delicate balance of plant and animal life. A varied assortment of creatures, many too tiny to see. A place to make peace with the world, and enjoy the wonders of nature.

But all this can change quickly. A slight shift in the environment and a tiny group of plants may suddenly burst into a teeming mass of choking weeds and slime. The effect is dramatic, as fish and other life forms struggle for survival in this hostile new world.

How to deal with these troublesome intruders? How to be sure that the delicate creatures already there may continue their existence unaffected?

The choice is Pennwalt Aquatic Herbicides. To quickly restore the natural balance. Without harming wildlife. Or human visitors.

AQUATHOL[®] K Aquatic Herbicide

AQUATHOL[®] Granular Aquatic Herbicide

HYDROTHOL[®] 191 Aquatic Algicide and Herbicide

HYDROTHOL[®] 191 Granular Aquatic Algicide and Herbicide

Liquid and granular formulations to control water weeds and algae on contact. And each is biodegradable.

Pennwalt Aquatics. Because an environment so precious should be treated with respect and care. After all, it's a living thing.

AGCHEM

PENWALT

CHEMICALS • EQUIPMENT
HEALTH PRODUCTS

Circle No. 118 on Reader Inquiry Card

ALCA hooks up with Foliage Exhibition

The Associated Landscape Contractors of America and the Tropical Plant Industry Exhibition Committee have finalized details for a joint venture of the Foliage Exhibition and ALCA's Annual Meeting. ALCA's Annual Meeting is scheduled for January 15-20 at the Miami Hyatt Regency and will precede TPIE. Thursday and Friday on the program are being left open to allow delegates to attend the trade show at the Coconut Grove Exhibition Center.

"Since Florida was the site of our Annual Meeting it was a natural to combine the trade shows," said Convention Committee Chairman Landon Reeve. "Because many of our exterior contractors do some interior work and otherwise would not have the opportunity to attend this type of specialty show, we are expecting a record breaking attendance."

NLA reelects Harrell

At the National Landscape Association/Garden Centers of America Clinic, Gerald Harrell, Landscapes Unlimited, TX, was reelected president of NLA. Also reelected were vice president Joe Wayman, Forrest Keeling Nursery, MO, and secretary-treasurer Robert Siebenthaler (all for one-year terms). Frank Tomlinson was reelected director-at-large and Denny Church, William Doerler and John Korfhage, Jr. were reelected to two-year terms.

1981 Landscape business up 11%

Landscapers reported an average increase in their 1981 business of 11%, according to National Landscape Association's Eighth Annual Economic Survey. Geographically, the Northeast reported the highest increase of 18%, while the Great Lakes region posted the lowest gain—7%. Projections for the current year are an optimistic, albeit modest, 7%. The Western Plains region expects the largest surge in business (12%), while landscapers in the West (West Coast and Southwest) predict a slight increase of 1%.

The NLA study surveyed 1981 actual business and 1982 predicted business in residential renovation, new commercial, new residential and commercial renovation. The geographic areas studied were the Northeast, Southeast, Great Lakes, Western Plains and West. Nationally, 52% reported an increase in residential renovations, with the 81% of the Northeast and 70% of the Western Plains reporting gains. New commercial business increases were posted by 50% of landscapers in the survey. Again the Northeast led with 61% posting an increase in business. New residential business decreased at 54% of the landscape companies (37% increased and 9% remained the same). Commercial renovation brought up the rear with 49% reporting decreases, 20% the same and 31% increasing.

Projections for 1982 are hopeful but take the sluggish economy into account. The percentage of landscapers predicting increases in business are: residential renovation—43% (Northeast 64%, West-63%); new commercial—40% (West-70%); new residential—32% (West-59%); and commercial renovation—18% (Great Lakes-0%).

For 1981, the East experienced an above average increase in business while the rest of the country experienced below average increases. For 1982, the Western Plains and the Northeast are the most optimistic while the other regions of the country are least optimistic about landscape business.

company's specialization in the marketing and retailing of sod directly to the homeowner. In 1981, the company sold more than 75 acres of sod and fertilizer. Richard Rogers, president of Pacific Green/Nunes, hopes that they will be able to use their marketing techniques to create consumer awareness and interest in sod.



Peggy and Jack Gribben have joined Pacific Green/Nunes

Kern Turf wins Rain Bird award

In other Rain Bird news, nine distributors received awards at the company's annual master-turf distributors meeting in Rancho Mirage, CA. Kern Turf Supply Bakersfield, CA, was chosen as the top distributor for its outstanding sales and marketing performance.

Kern Turf Supply was selected the top distributor of Rain Bird irrigation equipment based on outstanding sales and marketing performance with specific attention given to superior service, contractor development and effort, sales growth over a 12-month period and market penetration.

Awards were presented to Robison's Lawn and Golf of Grandview, MO, for contractor development; Lawn and Turf Inc., of Conyers, GA, for sales achievement; Automatic Rain Co., of Menlo Park, CA, for after-sales service;

Continues on page 16

For a Trencher and Backhoe don't settle for less than the Ditch Witch 2300.

Here's a combination that's hard to beat. A compact trencher with a backhoe that lets one machine do the work of two.

The 2300 has a 30-HP-class engine, a rigid frame for strength and stability and a 43,000-pound-test digging chain. Power steering and easy-to-reach controls mean easy operation.

The 2300 digs to depths of 5 feet (5 inches wide), depending on boom and chain set up. A hydraulic backfill blade is standard. The front-mounted A220 backhoe digs to depths of 5 feet.

So talk to your authorized Ditch Witch dealer. He can offer you more than the competition when it comes to maintenance, service in the shop or on the job or a full spare-parts inventory. So give him a call today. Find out how much more the 2300, the A220 backhoe and your Ditch Witch dealer can mean in productivity and profitability for you. Or call toll-free for literature: (800) 654-6481

The Charles Machine Works, Inc.
P.O. Box 66, Perry, Oklahoma
73077 Phone: (405) 336-4402.



**Ditch Witch.
Don't settle for less!**



**Ditch
Witch**

UPDATE

BY WILLIAM HOFFMAN

Urban Park Program to go to cities

The National Park Service (NPS), U.S. Department of the Interior, has appropriated \$7.7 million in fiscal year 1982 for continuing existing innovative grants under its Urban Park and Recreation Recovery Program. Beginning in 1979, grants totalling almost \$14 million have been given to 69 U.S. cities. The majority of these projects have provided recreation services for neighborhoods where none existed before: A facility for handicapped children in Pascagoula, MS; a tool and equipment loan service in Hartford, CT; a recreation park for senior citizens in Worcester, MA; a renovated service center in Lompoc, CA; a theater arts program in Louisville, KY; conversion of an abandoned sewage treatment plant into an environmental education center in Bellingham, WA; volunteer vandalism prevention and park awareness groups in Evansville, IN; truck mounted swimming pools for use in streets of New York; and conversion of post office building into a recreation and day care center in Wilmington, NC. This will probably be the last year of the program and this year's money should complete the projects and make them ready for city management.

Mediterranean fruit fly eradicated in Florida

What a difference a well-planned offense makes when handling an emergency insect infestation. Remember the political maneuvering last year over the use of malathion in California to control the Mediterranean fruit fly. It certainly made major headlines throughout the country and is still discussed in this year's political campaigns in that State.

Last August 1981, following the discovery of a number of Medfly larva in Hillsborough County, FL, officials of the U.S. Department of Agriculture and the Florida Department of Agriculture and Consumer Service authorized the spraying of the infested area 10 times with the pesticide malathion. In addition, an intensive trapping and fruit sampling system was initiated to detect the presence of any flies or larvae. No evidence of the fly has been found since the initial fly catches last year and since enough time has passed without flies or any evidence of infestation, the U.S. Department of Agriculture has declared the Medfly eradicated in this part of Florida. No such decision has been made in California as yet.

Satellite to assist landscape architects

A new satellite in the Landsat series launched in July which will provide aerial photographic resolution of land areas as small as one-half acre. The Earth Resources Observation System (EROS) of the U.S. Department of Interior will make this terrain analytical data available to anyone who wants it. Recently, landscape architects have been using both aerial image and the satellite computer-type data for large-scale land development and resource management. They can identify vegetation types, stream beds, underground water supplies, seepage areas, depth of the water table and the depth of soil over bedrock. With data from the new satellite, the landscape architects will be able to plan small-scale projects, such as, parks, golf-courses, college campuses, cemeteries, urban centers, or office parks without leaving the office. Space technology should help in achieving high quality designs joined with a respect for the environment.

Artesco of Phoenix, AR, for an outstanding specification effort; A-1 Turf Irrigation Supply of Houston, TX, for market development; Florida Irrigation Supply of Orlando, FL, for outstanding contribution to the development of the Orlando Airport; and Indio Pipe and Supply Co., of Indio, CA, for sales and service to the golf course market.

IRRIGATION

Toro names Skidgel marketing director

The Irrigation Division of The Toro Co., Riverside, CA, has named John Skidgel director of marketing. Having served in marketing in the division for 20 years, he is a specialist in golf course and other large turf irrigation applications.



John Skidgel

Skidgel's new responsibilities will include the division's expanded marketing program and the introduction of new products. "We are actively planning our fiscal 1983 campaign, with even greater marketing support for everyone in the Toro family, from distributors to dealers to installers," said Skidgel.

SEED

Hertwig joins International Seed

Jack Hertwig has joined the staff of International Seed Inc. Halsey, OR, as a turf consultant. He previously worked for Germain's Seed Co., for 25 years as a turf consultant for the southwestern U.S., Mexico, Hawaii and California.

Hertwig is a member of the National Golf Superintendent's Association and a contributor to the Southern California Superintendent's publication. In recent years, he has expanded from golf into work with grounds managers of athletic fields including the Rose Bowl, Super Bowl and Orange Bowl.



TO LEARN ABOUT TREES, OUR PEOPLE START WITH A BOARD.

There's more to tree care than meets the eye.

That's why Davey Tree personnel undergo thorough classroom training at the Davey Institute of Tree Sciences. As well as extensive field training.

Something many other tree care companies can't do.

Our supervisors learn insect and disease control. Diagnosis. Tree care production, planning, and quality control.

This way our crews know how to work on your commercial or municipal property safely and correctly.

Of course, the advantages don't stop there. On the job Davey offers the latest equipment and technology. Free technical advice from our Research and Development Center. And our famous ARBOR-GREEN® two-year fertilizer, available only from Davey.

Put it together, and you can see why Davey's Total Program of grounds maintenance gives you so much more for your money, service for service.

For a new or ongoing tree care program, Davey can work for you.

Look us up in the Yellow Pages. Or write to: Donald J. Shope, VP Tree Care Services, Davey Tree, 117 S. Water Street, Kent, Ohio 44240.

Because you see, trained people backed up by a technical staff cost you no more.

Davey Tree. We don't just care for trees. We learn how to care for them better.

DAVEY TREE
Kent, Ohio • Coast to Coast and Canada
Keeping America Green Since 1909.



**20th
ANNIVERSARY**



In 1915, agriculture and turfgrass seed salesmen proudly stand by their Fords.

NORTHROP KING NEARS CENTURY MARK

This year, Northrup King Co. will celebrate its 98th anniversary.

It is a time to look back for most companies. Instead, Northrup King researchers are hard at work completing the introduction work on a host of new varieties of seeds, and new turf management techniques. This year also marks the beginning of a new structure for Medalist Turf Products, which serves the growing professional turf industry.

In 1884, Northrup King Co. was founded in Minneapolis, MN, on the banks of the Mississippi River. In 1915, its current headquarters were constructed in northeast Minneapolis. Since its beginning, the company has expanded its markets and product lines to serve a growing number of customers.

One of the company's expanding

markets is served by the Consumer Products Division, which provide turfgrass products both to professional and home lawn customers.

The company, which has been selling grass seed since the turn of the century, first entered the professional turf field in 1970, when it introduced Medalist Brand overseeding products, the first overseeding products to ever be introduced to the southern golf course market. Overseeding has since helped keep southern golf courses in top playing condition over the winter months.

By the mid-70's, professional turf efforts were expanded to include sales of a variety of turfgrass products to professionals with a myriad of needs, in both warm and cool climates.

Today, Medalist Turf Products serve all segments of the professional turf industry. Northrup King grasses are used on golf courses, home lawns and boulevards, in parks and on athletic fields, at office sites, cemeteries and sod farms. In short, they are used for almost any professional turf need.

Part of the marketing strategy for Medalist Turf Products involves offering specialized turfgrass mixes designed for particular purposes, as well as selling straight seed varieties.

The Medalist Turf Products department was given its new name and structure just this year, to reflect its growth in serving turfgrass professionals. Currently, the company's market stretches across the

Continues on page 20

THESE INSECTS HAVE ONE THING IN COMMON

They now can be
controlled by a NEW
effective carbamate
insecticide **TURCAM**®

TURCAM Insecticide offers the professional turf and ornamental care specialists a new effective broad spectrum insecticide for the control of a wide range of ornamental and turf pests including gypsy moth, Eastern tent caterpillar, certain scale insects and weevils, Japanese beetles, sod webworms, chinch bugs, mole crickets, white grubs and various nuisance pests such as fleas, wasps and fireants.

In addition to controlling these and many other pests, TURCAM

- Will not damage your ornamentals
- Will not get tied up in your turf thatch
- Is odorless
- Is suitable for use in Liquid Systems.

For further information on TURCAM including full labeling and recommendations for use please contact your local distributor or write to the address below.

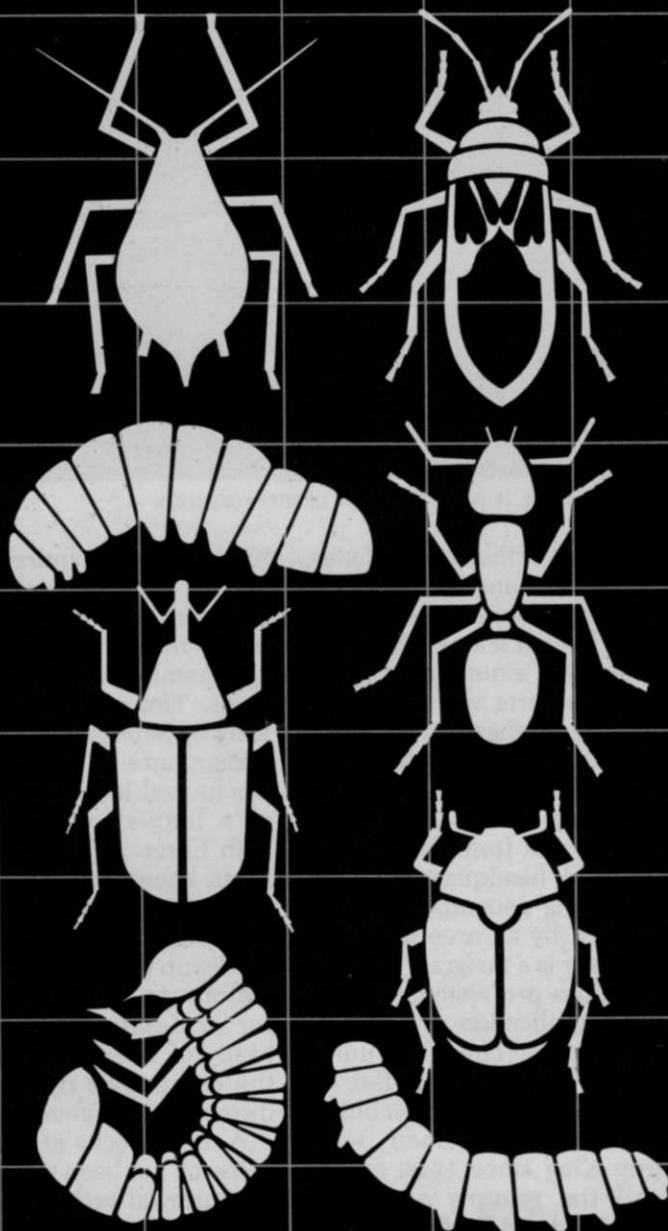
TURCAM®

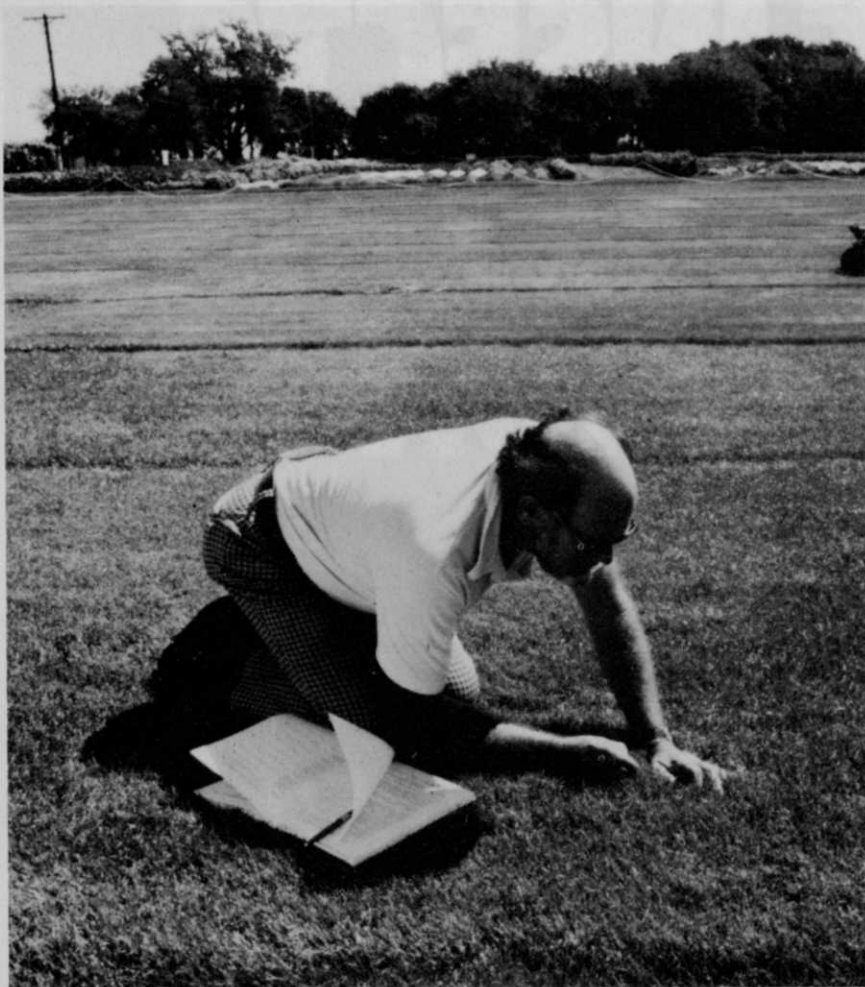
Broad Spectrum Insecticide



TM

BFC Chemicals, Inc.
4311 Lancaster Pike
Wilmington, DE 19805





Howard Kaerwer is NK's director of turf research.

southern coast of the United States, into midwestern and western markets. The departmental reorganization brought with it a new distribution system. For a number of years, marketing efforts were concentrated in the southern overseeding market. The new approach to marketing helps bring together all areas by providing direction and increased services from the company's national headquarters. Each Northrup King geographical market is served by an area manager. This manager is a turfgrass specialist who brings professional expertise to the application of Medalist Turf Products. The Consumer Products Division is headed by Vice President Howard Schuler. Schuler, who has been with Northrup King since 1949, supervises all the group's activities, including Medalist Turf Products.

There have also been some notable corporate changes in the past twenty years. In 1976, Northrup

King Co. was acquired by Sandoz, Ltd., a Switzerland-based firm. This multinational company has interest in pharmaceuticals, dyes, agrichemicals and specialty food items. The purchase of Northrup King by Sandoz reflects the worldwide nature of the seed trade, and has helped to enhance the company's long-standing relationship with European seed and breeding firms, known as pioneers in the development of new grass varieties.

During the past two decades, Northrup King has introduced numerous improved grass varieties for professional and home use. Many of these were developed at the company's research stations throughout the country.

A major focus of the company's research has been the development of improved turfgrasses which not only have superior disease and insect tolerance, but which actually require less maintenance. In today's energy conscious market,

newly developed turfgrasses which need less mowing, watering and fertilizing, have met with tremendous success.

Research focusing on the environmental needs of diverse markets led to the introduction of a new, salt-tolerant grass variety, "Fulfs" *Puccinellia distans*, three years ago. This turfgrass performs excellently in saline and alkaline soil. It has stood up to testing under conditions ranging from northern boulevards, where use of salt as a de-icer kills most turfgrasses, to testing on coastal golf courses, which often experience the problems associated with salty soils.

Twenty years ago, Northrup King research led to the introduction of NK100, the first fine-leaved perennial ryegrass. This revolutionary variety debuted in 1962 as a vastly improved alternative to the coarse perennial and annual ryegrasses available at that time. Today, its well-received successors include Eton and NK200, as well as Delray and Goalie perennial ryegrasses.

Northrup King was one of the first companies to introduce improved bluegrasses, when it came out with Prato Kentucky bluegrass in 1962. This bluegrass was followed by two additional improved varieties, Parade and Rugby. These varieties were selected for their exceptional color, and improved disease and insect tolerance.

Low-maintenance, hardy fine fescues, which serve a variety of purposes for the professional and homeowner, have also been successfully improved by Northrup King. These drought-tolerant grasses have performed extremely well under low fertility conditions.

In addition to Medalist Turf Products for the professional turf market, the growing Consumer Products Division serves the home lawn, garden and horticultural market with a complete line of grass seed mixtures, fertilizers, vegetables and flower seeds.

Another Northrup King Co. group produces a variety of agricultural crop seeds ranging from corn to cotton, soybeans to sunflowers.

The past twenty years have seen particularly strong growth for Medalist Turf Products. **WTT**