

# AMERICA'S NUMBER ONE WEAPON IN THE WAR AGAINST CRABGRASS.

The overwhelming choice among America's biggest lawn care companies is Betasan® for crabgrass control.

In fact, in a survey of 75 of the largest companies, Betasan is used by four out of five.

It's not hard to see why. Because year after year, Betasan gives lawn care professionals better control of Smooth and Hairy Crabgrass, without a worry about damaging existing turf. One application usually stops crabgrass cold, all year long.

Betasan is easy to apply and available in liquid and granular formulations.

Betasan is safe and effective on established bluegrass, fescue, bentgrass, Bermuda grass, annual and perennial rye, Zoysia, bahia, centipede and St. Augustine.

So when the battle with crabgrass is your number one priority, use the number one crabgrass control.

Betasan. The first choice on the home front.

Always follow label directions carefully.

Stauffer Chemical Company, Agricultural Chemical Division, Westport, Connecticut 06881.

**BETASAN**®  
**NO.1 AGAINST CRABGRASS.**



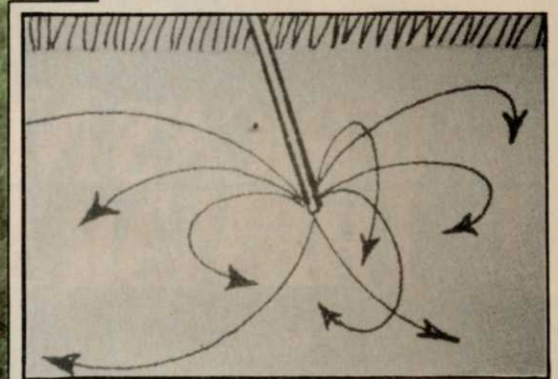
Circle No. 123 on Reader Inquiry Card

# Fertilizer Guide

## Part 3:

### Trees Deserve At Least the Same Care as Turf

By Roger Funk, Vice President,  
Research and Development,  
and Richard Rathjens, Agronomist,  
Davey Tree Expert Co., Kent, Ohio



*Liquid soil injection provides good distribution of nutrients in the soil.*

Fertilization of landscape trees and shrubs is important because they are often grown out of their native habitat and are subject to adverse soil and environmental conditions.

Compacted soils, poor drainage, restricted root areas, highway salts, air pollutants and competition from turfgrass contribute to plant stress and increase the importance of regular fertilization to maintain healthy growth. Vigorous, well-maintained trees are more resistant to many insect and disease pests, are more attractive, and a greater

asset to properties.

Trees absorb and utilize at least 13 elements from the soil. Of these, only nitrogen, phosphorus and potassium are normally considered when fertilizing. Supplemental nutrients, such as iron and manganese, may be necessary for certain species growing in alkaline soils.

Nitrogen is required in greater amounts than the other nutrient elements and is more often deficient in soils. Plants generally respond to applications of nitrogen, often with dramatic improvements in shoot growth and leaf

color. Heavy applications of nitrogen alone may stimulate shoot growth more than root growth, disturbing the natural root-shoot ratio. Soil analysis for nitrogen is not particularly useful due to its transitory nature in soils and the large amount extracted by plants.

The need for supplemental phosphorus and potassium is difficult to determine since they normally do not produce a visible response except on young or newly transplanted trees and shrubs. Field study results have been inconsistent due to differences in soil, tree age and loca-

# for trees

tion, and fertilization timing and methods.

Arborists fertilize trees and shrubs with a complete fertilizer where reliable soil tests are not available for phosphorus and potassium. The most practical approach is often to determine what elements are deficient in a market area and to base the fertil-

---

## Plants in alkaline soils are more likely to need additional micronutrients.

---

izer formulation on a market basis rather than case by case.

Specific soil/plant deficiencies can be addressed, if necessary, on an individual basis. In most cases, a 3:1:1 or similar ratio is satisfactory for landscape plants. Additional potassium and micronutrients may be advisable in sandy soils.

Plants in alkaline soils, particularly ericaceous or "acid-loving" plants, may need additional micronutrients. Iron deficiency chlorosis is common on oak, rhododendron and pine grown in alkaline soils and has been reported on sweet gum, ginko and birch, as well as other woody ornamentals. Manganese deficiency chlorosis, common with maples, is also induced by alkaline soils.

### Application rates

Most fertilizer recommendations are based on the number of square feet in the growing area for shrub beds or the branch spread of individual trees and shrubs. Fertilizer recommendations based on trunk diameter can result in over-fertilization and damage to plants if the root system is restricted by paved areas, foundation walls, or other obstructions in the soil.

Three pounds of actual nitrogen per 1,000 square feet per year or six pounds every other year is satisfactory to maintain the health and vigor of deciduous trees and

shrubs. If leaf color, annual growth, or general vigor is unacceptable, six pounds of nitrogen per 1,000 square feet may be applied annually.

Broadleaf evergreens, small shrubs, flowering trees and recently transplanted or declining trees are more sensitive to fertilizer salts and should receive only about one-half the recommended rate, particularly when quick-release fertilizers are applied. The risk of injury to sensitive plants may be reduced by splitting the recommended amounts into two or more applications.

The amount of fertilizer to be applied per 1,000 square feet of root area can be calculated by dividing the percent nitrogen on the fertilizer bag into the desired nitrogen per 1,000 square feet. For example, to determine the amount of 30-10-10 fertilizer required to apply six pounds of nitrogen per 1,000 square feet, divide 6 by .30 (30 percent). The result is 20 pounds per 1,000 square feet.

### Application timing

Fertilization is most effective when supplemental nutrients are available during periods of optimum root growth. Although the roots of woody plants may elongate throughout the growing season, active root growth most often occurs in early spring and late fall when soil temperatures are relatively cool and there is little competition from leaves for water and nutrients.

Soluble nitrogen fertilizers, because of their short residual in soils, should be applied between October and December or between February and April. Controlled-release nitrogen ensures availability in the root zone for a relatively long period and application timing may not be a major concern.

### Application techniques

Supplemental nutrients can be supplied to landscape plants through foliar sprays, trunk injec-

tions, or applications on or beneath the soil surface. Though each method has advantages in specific situations, woody plants are well-equipped to absorb nutrients through the root system and in most cases respond best to soil applications.

### Surface applications

Nitrogen fertilizers can be applied to the soil surface since nitrates are highly mobile in soil solution and will move downward into the root zone. Surface applications for woody plants in sodded areas should not exceed one pound of soluble nitrogen per 1,000 square feet per application, or three pounds per 1,000 per application of controlled-release nitrogen.

Since turfgrasses within the application area may be injured or respond with undesirable succulent growth, trees and shrubs in quality lawns can be fertilized with subsurface applications, either placed in vertical holes or injected below the soil surface.

Fertilizer containing phosphorus should not be applied to the soil surface. Phosphorus is bound tightly to soil particles and does not move downward to the

---

## Fertilization is most effective when nutrients are available during optimum root growth, October to December and February to April.

---

roots. Surface applications of phosphorus may also stimulate annual bluegrass in home lawns.

### Drill hole technique

Fertilizer can be placed in the root zone by drilling holes in the ground and dividing the recommended amount of fertilizer equally among the holes. For trees, the holes should be drilled 12 to 18 inches deep and 18 to 24

# Fertilizer

inches apart, beginning two to three feet from the trunk and extending two to three feet beyond the drip line of the tree or shrub.

To prevent turfgrass injury, the fertilizer level should be at least four inches below the soil surface. Calcined clay, Perlite, or other soil amendment can be used to fill the top of the hole. In quality lawns, a plug of grass can be removed before drilling and replaced after the fertilizer is added.

## Soil injection

Liquid soil injection is an alternative to the drill hole technique. It provides more thorough nutrient distribution in the root zone and can be done in about one-fourth the time. But, you have to be careful since soluble fertilizers have relatively high

burn potentials and may be rapidly leached from the root zone.

The injection equipment consists of a hydraulic sprayer oper-

## Soluble nitrogen will stay in the soil for as little as six weeks.

ated at 150-200 psi and an injector probe that inserts about 12 inches into the soil. The injections are normally in a grid pattern about three feet apart in the same area as the drill hole technique.

The actual amount of soluble fertilizer applied is often less than one pound nitrogen per 1,000 square feet. The rate is moderate because of factors such as drought and decline which increase the

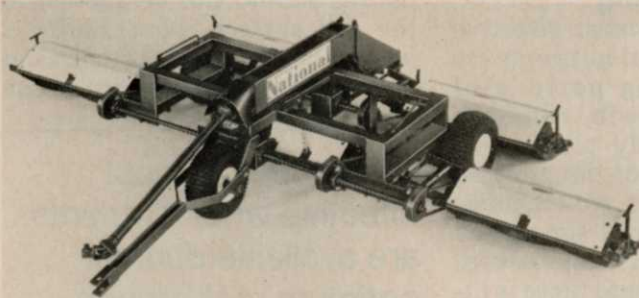
sensitivity of plants to fertilizer salts. After application, soluble nitrogen may remain in the root zone for as little as six weeks, further reducing the amount of nitrogen available for absorption.

Suspension fertilizers are rapidly gaining acceptance for soil injection because of the limitations of soluble fertilizers.

Ureaformaldehyde is particularly effective as a controlled-release nitrogen source in spraying systems since the release rate is not greatly affected by particle size. Suspended in water, powdered UF can be injected into the soil and dispersed laterally by hydraulic pressure.

At least 60 percent of the total nitrogen in UF is water insoluble and becomes available over a one- to two-year period. UF has a significantly lower burn potential than soluble nitrogen sources.

## Power Quint II



NATIONAL PTO DRIVEN 5-GANG MOWER

**Solves the problems of price, performance and maintenance**

- Economical to buy and maintain
- Per-inch cut cost is less than competitive models
- Cuts an 11½-foot swath
- Reels are interchangeable with and the same as those made for our Model 84 Triplex
- Highly maneuverable.



Write for specifications

**NATIONAL  
MOWER COMPANY**

660 Raymond Ave., St. Paul, MN 55114  
612/646-4079

Circle No. 113 on Reader Inquiry Card

## ARM YOURSELF FOR THE BUSY MONTHS AHEAD

*... with vital marketing data gathered by our experts in these proven research techniques:*

- WATS Telephone
- Focus Groups
- Direct Mail
- Personal Interviews

We provide top quality in-house printing, mailing, tabulating, data processing, and analytical systems.

**Count on us for your special research needs.**

*Free Cost estimates.*

**Infometrics**

**National Research Center**

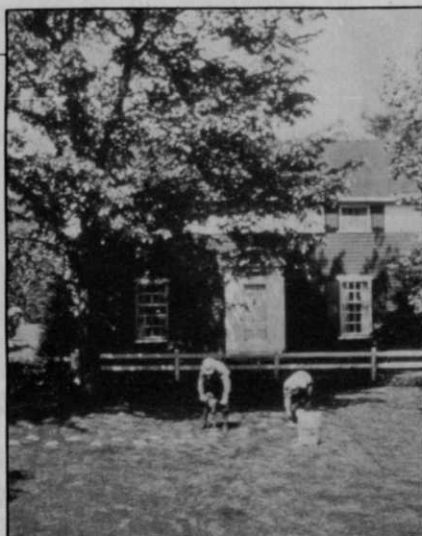
A SERVICE OF HARCOURT BRACE JOVANOVIH PUBLICATIONS  
131 West First Street, Duluth, Minnesota 55802 Ph: (218) 727-8511

The nitrogen salts are released gradually as the compounds degrade, safely supplying the recommended annual rate of three to six pounds of nitrogen per 1,000 square feet in a single application.

Soluble methylol and methylene ureas—reaction products of urea and formaldehyde—have recently been introduced in the lawn care industry. These compounds have a lower burn potential than urea or other soluble nitrogen sources but their release characteristics and usefulness in tree care have not yet been determined.

#### Other methods

The aero-fertil technique injects dry fertilizer by blasts of air into holes which have been previously drilled in the soil. This method is similar to drill-hole application and provides addi-



*Drill hole technique places the fertilizer under the soil surface avoiding lush growth of turf on the surface.*

tional aeration by fracturing heavy or compacted soils.

Fertilizer stakes or spikes are solid formulations of fertilizer driven into the ground at intervals beneath the drip line of trees and

shrubs. Although they contain satisfactory fertilizer materials, one or two spikes per inch of trunk diameter provide only a small amount of fertilizer. Limited lateral distribution of the fertilizer within the root zone of most soils permits only a small amount of fertilizer to reach the root system.

Foliage sprays, trunk injections, and trunk implants supply a limited amount of nutrients to woody plants. They are recommended for micronutrients where availability is reduced by alkaline soil conditions. They are most effective when a single micronutrient is deficient.

#### Micronutrient deficiencies

Micronutrients are more likely to be chemically unavailable to roots than low in the amount present in the soil. Sandy soils are the exception to this.

## Solo's Multimot Program Guarantees Sales In All Seasons



An impressive array of outdoor equipment powered by a single compact, 1½ hp SOLO two-cycle engine.

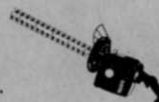
Click . . . release a spring loaded lever and the engine is attached in seconds without tools, to a **grass trimmer, brush cutter or chain saw.** Also a **hedge trimmer, tiller/cultivator, hand held air blower, centrifugal or high pressure liquid pumps and sprayers.**

**"CLICK"**



And there are more to come.

The Multimot Program . . . a versatile line of equipment that increases dealer's sales and profits. **SOLO ensures return visits** from your customers **now and in the future** as they build their own program. Start selling Multimot from SOLO and enjoy sales in all seasons. Contact us today for detailed information.




**SOLO**

SOLO INC., 5100 Chestnut Ave., P.O. Box 5030, Newport News, Va. 23605-0030  
Canada: Box 464, Burlington, Ontario L7R 3Y3

NORTHRUP KING PRESENTS

# THE HEAVY TRAFFIC, CLEAN MOWING, SALT TOLERANT, DISEASE FIGHTING, SUN-TO-SHADE GRASS SEED.



*No one grass seed combines every characteristic for every type of turf. That's why Northrup King research has developed a complete line of Medalist Turf Products to meet specialized professional needs.*

<b>MEDALIST TURF PRODUCT</b>	<b>MAJOR AREAS OF USE</b>	<b>SPECIAL FEATURES</b>
Athletic Pro Mix	High maintenance athletic turf	Both are well suited for new seeding or overseeding. Fast establishing, excellent traffic tolerance, and rapid recovery. Provides good footing.
Athletic Pro II Mix	Low to moderate maintenance athletic turf.	
Boulevard Mix	Any area with high pH (roadsides, sidewalks, boulevards, beachfronts, etc.)	Contains both "Fults" <i>Puccinellia distans</i> and Dawson red fescue which thrive on high saline or alkaline soils. Performs at low to high fertility levels.
Landscape Pro Mix	School grounds, cemeteries, golf course roughs, lawns	Fast establishing. Adapts to broad range of conditions and management levels. Low to moderate fertility requirements.
Overseeder II Mix	Fairways, tees, athletic fields	Fast establishing, traffic tolerant, disease resistant, penetrates compacted soil.
Medalist North Mix	Fairways, tees, cart paths, wear areas	Long term quality in high traffic areas. Clean mowing and disease tolerant.
Premium Sod Blend	Commercial sod producers	Fast establishing, exceptional dark green color, shade tolerant, superior disease resistance.
Special Park Mix	Parks, commercial developments, lawns	Low fertility tolerance, shade tolerant, adapts to wide range of soil types.

*Ask your Northrup King distributor about the Medalist Turf Products for your needs. Or write Northrup King Medalist Turf Products, P.O. Box 959, Minneapolis, MN 55440.*



Circle No. 114 on Reader Inquiry Card

# Fertilizer

Soil applications to prevent or correct micronutrient deficiencies include nitrate or sulfate salts, chelates, and sulfur. Results have not always been satisfactory due, in part, to insufficient applications of the amending agent, severity of the deficiency, and soil problems such as excess alkalinity and poor drainage.

---

**Foliar treatments, implants, and injections are discouraged for plants suffering from moisture stress.**

---

Micronutrients in the form of nitrate and sulfate salts are often included in fertilizer formulations, but not in sufficient amounts to correct a deficiency. In addition, micronutrient salts may quickly become insoluble in alkaline soils and unavailable for absorption by plants.

Recommended rates for landscape plants vary depending upon the micronutrient source, the soil pH and texture, and whether or not the plants are growing in a lawn. Inorganic salts of micronutrients may injure turfgrasses at the rate recommended for woody plants and should be applied during the dormant period, preferably by subsurface application.

Chelates remain more soluble in alkaline soils than inorganic salts and can be applied to the soil surface or injected into the soil. Chelates also are less likely to cause injury to plants than inorganic salts and last longer in the soil. However, the cost of chelated micronutrients is considerably higher than for inorganic sources.

Chelates are marketed under various trade names with formulations for different conditions and purposes. Recommended rates usually vary from two pounds to six pounds per 1,000

square feet. Select the proper product for a particular situation and follow directions on the label.

Acidifying agents, such as sulfur and sulfuric acid, are normally injected into the soil or placed in vertical holes. Depending upon soil texture and pH, large amounts of sulfur may be required over a number of years to correct the pH of calcareous soils. To minimize the potential for injury to woody plants, 20 pounds per 1,000 square feet should be the maximum amount of sulfur applied at one time. Turfgrass injury has been reported at rates above five pounds per 1,000 square feet. Attempts to acidify large areas of soil with existing landscape plants have generally not been successful.

Foliar sprays are especially effective on ericaceous plants, such as rhododendrons, to correct iron deficiencies. Not all plant species, however, respond to foliar-applied micronutrients. Applications are recommended just prior to or during active shoot growth in the spring. Applications later in the season may also be effective.

Response to foliar treatments will vary depending upon the species, age and condition of the plant, time of year, micronutrient applied, and severity of the deficiency. For best results, the plant should not be suffering from moisture stress, the leaf surfaces should be thoroughly covered and the humidity should be high enough to allow the spray to remain on the leaf in soluble form long enough to be absorbed. Both chelated and inorganic micronutrients are recommended.

Trunk injections and implants are recommended to correct micronutrient deficiencies in trees over four inches in diameter which do not respond satisfactorily to soil treatments.

For trees which have begun to decline, the best results are usually obtained from trunk treatments in conjunction with soil applications of fertilizer. Once the

deficiency has been corrected, attempts should be made to maintain adequate micronutrient levels in the soil to avoid repeated wounding of the trunk.



*Iron chlorosis is evident on a maple.*

Injections or implants should be spaced four to five inches apart and as low as possible on the trunk. Since the outermost xylem (wood) rings are actively transporting water and dissolved minerals, capsules should be placed or injections made in this area. Capsules or materials which seal the injection hole should be inserted just below the bark tissue to facilitate proper wound closure. The best and most rapid callusing occur when treatments are made before growth starts in the spring.

In addition to commercially available injection and implant products, micronutrients can be injected with the same equipment recommended for Dutch Elm Disease, which is inexpensive and simple to use.

For iron-deficient pin oaks, dissolve 1.5 to 2 grams of ferric ammonium citrate in one to two cups of water for each injection.

Trees under moisture stress should not be treated with trunk injections or implants. **WTT**

# BOOKSTORE



**335-LANDSCAPE DESIGN THAT SAVES ENERGY** by Anne Simon Moffat and Marc Schlier  
Practical guide to landscaping a home or office to reduce space heating needs by as much as 30 percent annually. Contains specific planning strategies for the four main climatic zones of the continental United States. **\$9.95**

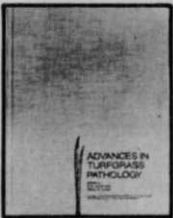
**360-RESIDENTIAL LANDSCAPING I** by Theodore D. Walker  
Provides an in-depth discussion of the planning, design and construction phases of residential landscaping. Illustrated with the work of professional landscape architects. Covers everything from analyzing the site to constructing the landscape.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

**395-LANDSCAPE ARCHITECTURE** by John Ormsbee Simonds  
A Manual of Site Planning and Design. This long-awaited second edition outlines and analyzes the complete landscape process from site selection to finished project. In simple and clear terms it describes various planning constraints imposed by the forms, forces and features of the natural and built landscape. **\$34.95**

**790-RECREATION PLANNING AND DESIGN** by Seymour M. Gold  
A comprehensive look at recreation needs for parks and how they can design the park facility for the community. Book's content can help justify construction and maintenance needs. **\$39.50**

**800-THE GOLF COURSE** by Geoffrey S. Cornish and Ronald E. Whitten  
The first book ever to give the art of golf course design its due, and golf course architects the credit and recognition they deserve. 320 pages and approximately 150 color and black and white photographs. Traces the history and evolution of the golf course, analyzes the great courses, shows how they were designed and constructed. **\$35.00**

**615-TURF MANAGEMENT FOR GOLF COURSES** by James B. Beard  
Written by an eminent turfgrass researcher, this USGA sponsored text is an ideal reference and "how to" guide. Details all phases of golf course operations including course design and construction, turf management, course administration, irrigation, equipment and disease and pest control. Fully Illustrated. **\$45.00**



**010, 015-ADVANCES IN TURFGRASS PATHOLOGY** by Dr. B.G. Joyner & Dr. P. Larsen  
Leading U.S. turf pathologists report on turfgrass diseases, pythium blight, snow molds, fairy rings, leaf spot of Kentucky Bluegrass in Minnesota, initial and field fungicide screening, turfgrass disease resistance, etc. Contains new ideas on how to combat turfgrass problems. **\$27.95 hardcover, \$18.95 paperback**

**625-ADVANCES IN TURFGRASS ENTOMOLOGY** edited by H.D. Niemczyk and B.G. Joyner  
A complete account of the facts presented at the 1980 Symposium on Turfgrass Insects. 200 photographs, tables and graphs make this volume an indispensable reference for anyone connected with the turfgrass industry or research. **\$24.95**

**110, 120-TURF MANAGERS' HANDBOOK** by Drs. William Daniel and Ray Freeborg  
This specially designed manual by leading turf specialists is a comprehensive, organized approach to turfgrass science and care. An easy, on-the-job reference for planning, purchasing, hiring, construction and plant selection. **\$23.95 hardcover, \$18.95 paperback**

**645-MANAGEMENT OF TURFGRASS DISEASES** by J.M. Vargas  
Identifies turfgrass diseases by description and illustration. Includes a holistic approach to healthy turf and lawns. Presents practical management strategies for golf courses, lawns and athletic fields. 204 pages, illustrated. **\$24.95**

**655-TURFGRASS: SCIENCE AND CULTURE LABORATORY MANUAL** by Beard, DiPaola, Johns and Karnok  
Class tested for over three years, this manual provides fourteen exercises which can be easily adapted to your particular course structure. Exercises involve students in vegetative and seed identification, equipment and irrigation system selection and operation, problem solving of typical math problems involved in turfgrass operations and the diagnosis of problems with emphasis on weeds, diseases and insects. Encompasses both warm and cool season turfgrass. **\$10.95**

**635-IRRIGATION PRINCIPLES AND PRACTICES** by Hansen, Israelisen and Stringham  
A new fourth edition of this highly successful textbook presents essential concepts pertaining to water conveyance, application, storage in the soil and use by the plants. Basic underlying principles that govern irrigation practices are stressed. Generalized concepts are discussed and newly formulated practices are examined. **\$34.50**



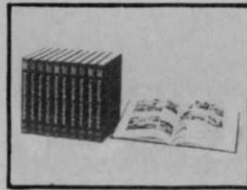
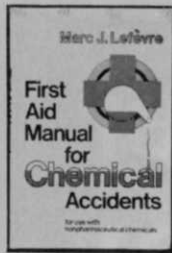
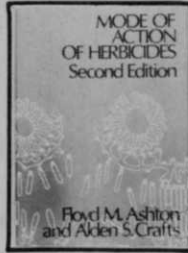
**565-WEEDS** by Walter C. Muenscher  
Second edition. Premier text for identification and basic natural history for weeds found in the continental United States and Canada. Ecological data on weed biology combined with excellent keys and plant descriptions makes this an essential reference book. **\$34.50**

**455-THE GRAFTER'S HANDBOOK** by R.J. Garner  
Revised and updated fourth edition. The encyclopedia of plant propagation by grafting. Contains information on the chemical control of weeds in orchards, on diseases and on the vegetative propagation of woody plants. **\$19.95**

**405-WOODY ORNAMENTALS** by Partyka, Joyner, Rimelspach, Carver  
Illustrates plant identification characteristics. Organized in two basic sections: plant identification and plant disorders. This text utilizes 430 color photos, 430 line drawings and 45 black and white photos to simplify identification. Goes into detail on plant identification and description as well as plant problems such as diseases, chemicals, insects, animals and physiological disorders. **\$27.00**



# BOOKSTORE



**575-MODE OF ACTION OF HERBICIDES** by Floyd M. Ashton and Alden S. Crafts. Provides worldwide body of information on each class of herbicide. Cross-indexed tables of common and trade names of herbicides are included. New herbicides accepted since 1972 are listed in this revised second edition. Excellent practical reference for specialists in field of weed science. \$47.95

**795-FIRST AID MANUAL FOR CHEMICAL ACCIDENTS** by Marc J. LeFevre. This indispensable guide helps you take quick corrective action to minimize the harmful effects of chemical accidents. Written for people (other than doctors) called on to aid fellow workers who are victims of such work-related accidents. A must reference for any work situation involving hazardous chemicals. \$21.50

**555-THE NEW YORK BOTANICAL GARDEN ILLUSTRATED ENCYCLOPEDIA OF HORTICULTURE** by Thomas H. Everett. 10 volumes compiled in an easy-to-use encyclopedic format with Latin/popular name cross-referencing, 20,000 species, 3600 genera, 2500 cross-references, 10,000 photographs. Slated to be the standard reference source in the field of horticulture. \$550.00

## ADDITIONAL TITLES

- 340 - CONSTRUCTION DESIGN FOR LANDSCAPE ARCHITECTS \$39.50
- 345 - COST DATA FOR LANDSCAPE CONSTRUCTION 1983 \$27.50
- 410 - DISEASES & PESTS OF ORNAMENTAL PLANTS \$29.95
- 660 - DISEASES OF SHADE TREES \$23.50
- 610 - DISEASES OF TURFGRASSES \$30.00
- 350 - HANDBOOK OF LANDSCAPE ARCHITECTURAL CONSTRUCTION \$48.50
- 510 - HORTUS THIRD \$125.00
- 690 - INSECTS THAT FEED ON TREES & SHRUBS \$47.50
- 370 - LANDSCAPE OPERATIONS: MANAGEMENT, METHODS & MATERIALS \$20.95

- 545 - MODERN WEED CONTROL \$21.50
- 700 - THE PRUNING MANUAL \$14.95
- 720 - SHRUB IDENTIFICATION \$8.00
- 750 - TREE IDENTIFICATION \$9.95
- 760 - TREE MAINTENANCE \$35.00
- 650 - TURFGRASS MANAGEMENT \$19.95
- 630 - TURFGRASS: SCIENCE & CULTURE \$27.95
- 640 - TURF IRRIGATION MANUAL \$22.95
- 620 - TURF MANAGEMENT HANDBOOK \$14.65
- 570 - WESTCOTT'S PLANT DISEASE HANDBOOK \$36.50

## CLOSEOUTS

**ORDER THESE TITLES AT SPECIAL REDUCED PRICES!**

- 450 - GARDENING IN SMALL PLACES \$6.75
- 460 - GREENHOUSE ENVIRONMENT \$21.20
- 480 - GREENHOUSE MANAGEMENT FOR FLOWER & PLANT PRODUCTION \$13.00
- 560 - WEED SCIENCE \$21.00

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 \_\_\_\_\_  
Signature \_\_\_\_\_ Date \_\_\_\_\_  
Phone Number \_\_\_\_\_

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.

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

(postage & handling)  
Total Enclosed \_\_\_\_\_

WTT 123

**Have you ever  
wondered why  
our multi-billion  
dollar industry  
didn't have  
its own show?**

**You can stop  
wondering.**

**INTERNATIONAL  
LAWN  
GARDEN  
& POWER  
EQUIPMENT  
EXPO 84**

Circle No. 127 on Reader Inquiry Card