



# Peters® Technology Packs Pure Performance In Every Drop.

Now, Peters brings cutting edge technology to turf and landscape managers.

Peters® Water Soluble Fertilizers are engineered with purer, higher quality ingredients to rigorous standards. This guarantees safer, more effective performance—from bag to bag, application after application. And Peters is 100% soluble, with no residuals to clog or damage equipment.

Regardless of the formulation you choose, each application of Peters provides the exact ratio of all necessary nutrients. So you can quickly and safely make your best looking greens and tees look even better. And, turn problem areas into lush, green expanses.

For more than 40 years, Peters technicians have perfected the development of high quality

soluble fertilizers. Now, Peters is the standard of excellence for turf and landscape managers, too.

Contact your Grace-Sierra distributor or call us toll-free at 1-800-492-8255.

And get the edge of Peters technology working for you.

**PETERS®**  
WATER SOLUBLE FERTILIZERS



centive program for buyers of selected products, January 1-March 31.

Purchase a Hustler 251K with Bac-Pac or 260K with Bac-Pac and receive a choice of two specially selected packages, each with a retail value of over \$550.

Models 251K and 260K feature the Turbo Shredder mower deck. When combined with the Bac-Pac attachment, they make a complete multi-season turf maintenance machine.

The Excel "Accessory Package"

contains the Hustler Edger Attachment and Rear Weight Kit.

The manually controlled edger is operated from the driver's seat and features a self-sharpening blade and sealed bearing, making it maintenance free, according to Excel.

A "Maintenance Package" includes normal maintenance items such as belts, filters and blades, and the Rear Weight Kit and Seat Armrest/Backrest Extension Kit for greater operator comfort.

Circle No. 199 on Reader Inquiry Card

# Turn Your Green Thumb Into Greenbacks.

You can grow your own company with a ServiceMaster LawnCare Franchise. And make a good living doing what you love.

As the industry leader, we give you all the training and support you need. So don't let the grass grow under your feet. For more information, call toll-free at 1-800-228-2814.

Partners in the ServiceMaster Quality Service Network<sup>SM</sup>

**ServiceMASTER. TERMINIX. merry maids.**

AMERICAN HOME SHIELD®

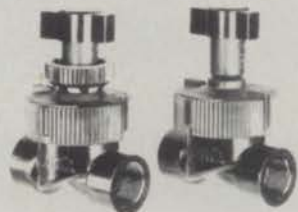
Circle No. 150 on Reader Inquiry Card

## Install and maintain new valve with ease

A super-durable valve line from Toro is designed to render installation, operation and maintenance dramatically easier and more efficient than ever before.

The Flo-Pro features the Toro QuickLind wireless solenoid, which enables the controller wires to be slipped straight into the solenoid for an instant connection with complete integrity. A waterproof gel inside the cap surrounds the contacts, eliminating the need for wire splices and watersealing.

Toro says the Flo-Pro has an encapsulated solenoid, with the plunger and other critical parts contained inside, so springs, screws and O-rings can't pop out.



Circle No. 200 on Reader Inquiry Card

## Meeting features newest vehicle line improvements

Club Car's recent dealer meeting provided the company an opportunity to introduce its new line of work vehicles.

Included in the product line-up are the Carryall I and Carryall II Pickup, Carryall I and Carryall II Flatbed, the Carryall II Plus, and the Tourall. The new features include the front cowl manufactured in



new, more flexible, more durable and easier to repair material.

An improved fresh air intake system has been added to the gas models.

A new gravity tilt bed on the Carryall I and the tilt bed with optional hydraulics on the Carryall II will make unloading easier.

Circle No. 201 on Reader Inquiry Card

## Bio-fertilizer rebuilds soil's biological productivity

TurfTech II—from Soil Technologies Corp.—is a microbial bio-fertilizer

*continued on page 84*





## OUR REPUTATION PRECEDES US.

- 1986: #1 IN TRUCK CUSTOMER SATISFACTION
- 1987: #1 IN TRUCK CUSTOMER SATISFACTION
- 1988: #1 IN TRUCK CUSTOMER SATISFACTION
- 1989: MOST TROUBLE-FREE TRUCK LINE IN AMERICA
- 1990: #1 IN TRUCK CUSTOMER SATISFACTION
- 1990: MOST TROUBLE-FREE TRUCK LINE IN AMERICA

We've always believed that if we made good trucks, word would get around. And that's what's happening, if our rankings in recent J.D. Power and Associates surveys are any indication. This year, for the fourth time in the last five, our entire line of trucks ranked number one in customer satisfaction.\*

All with standard features like confidence-inspiring rear anti-lock brakes. And all backed by our 36-month/50,000 mile, no-deductible, "bumper-to-bumper" warranty—one of the best basic warranties† in the truck business.

To get the lowdown on the complete line of tough, reliable Mazda trucks, call our National Fleet Sales office at (714) 727-6453. As you'll quickly see, your business can benefit from choosing Mazda. Because only our reputation precedes us.

\*J.D. Power and Associates 1986, 1987, 1988, 1990 Light Duty Truck Customer Satisfaction with Product Quality and Dealer Service.<sup>SM</sup> \*\*J.D. Power and Associates 1989 and 1990 Compact Truck Initial Quality Survey.<sup>SM</sup> Based on owner reported problems during the first 90 days of ownership. †Contact the National Fleet Sales Office for limited-warranty details.



And Mazda received the award for most trouble-free compact truck line in America for the second straight year.\*\* We think that's a pretty good indication of

what you, as a fleet operator, can expect from Mazda.

Choose from a complete range of models, 2- and 4-wheel drive, and a choice of engines to suit any purpose.

**mazda**  
IT JUST FEELS RIGHT.™



## PRODUCTS from page 82

which offers a comprehensive program for managing soil fertility.

TurfTech consists of dormant microorganisms in a wettable powder, and can be used with any type of grass to enhance the soil-plant relationship. When applied to the soil, these legume-like microbes begin producing organic compounds which include nitrogen from nitrogen fixation, polysaccharides, organic acids and plant growth stimulating hormones.

TurfTech II is described as an ideal seedbed preparation, either on bare

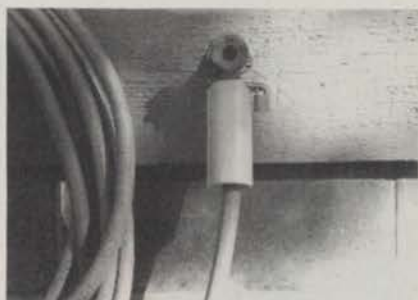
soil, newly established turf or for overseeding and hydroseeding.

Circle No. 202 on Reader Inquiry Card

## Hoses stay put with new locking device

Parker's Safe-Hose is an easy-to-use, two-part hose attachment to guard against hose theft and unauthorized water use.

Safe-Hose is made of durable plastic, and is secured with any standard padlock. Fits any standard faucet and



hose. Padlock not included.

Circle No. 203 on Reader Inquiry Card

## New impact sprinkler made to be extra durable

Rain Bird Sales, Agri-Products Division has introduced the L36, a 3-4 inch impact sprinkler. The sprinkler has been redesigned with many improvements so important to the pivot market. The body is manufactured of Valox for added strength. Arms are



made of Delrin for long lasting wear.

A front counterweight has been added to reduce arm strokes, resulting in less wear and longer life.

Circle No. 204 on Reader Inquiry Card

## Turn unwanted by-products into organic fertilizer

Harmony Products now offers the professional lawn care industry an alternative, environmentally sound, high-performing lawn fertilizer and turf builder.

Harmony's lawn fertilizer is made primarily from poultry by-products and is enhanced with synthetic nutrients. This mixture combines the advantages of organic and synthetic ingredients to produce a product that is both agronomically and environmentally sound. The fertilizer's chemical makeup is 14-3-6.

Harmony says its fertilizer produces an initial green-up, increases soil microbial activity and moisture holding capacity, and provides valuable soil micronutrients. Over time, it will rebuild the quality of existing soil, leading to better turf with less chemical inputs.

Circle No. 205 on Reader Inquiry Card

continued on page 90



## Say hello to Exmark's Floating deck performers.

Large-deck productivity plus a smooth, beautiful cut can be yours with an Exmark Turf Tracer™, Turf Ranger™ or Explorer™. Unique floating decks glide over uneven terrain for a perfect cut that will make you proud. We invite you to ask your dealer for a demonstration and experience all the advantages of Exmark's floating deck performers. For the dealer nearest you contact Exmark: 402/223-4010

Exmark Turf Tracer™



**exmark**  
MFG. CO. INC.

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Industrial Park NW, Box 748, Beatrice, NE 68310 FAX: 402/223-4154

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# Recognize America's Living Landmarks



From the towering 275-foot Giant Sequoia in California's Sequoia National Park to the relatively diminutive 20-foot Allegheny Plum in Virginia's Blue Ridge Mountains, America's living landmarks are an invaluable part of our nation's natural heritage.

That's why the American Forestry Association began The National Register of Big Trees in 1940. Today, as then, we encourage citizens across the country to find and recognize the largest tree of each species. With your help and participation, we can locate and protect these

champions for future generations while fostering a deeper appreciation for trees and forests everywhere.

For information on how to measure and nominate a Big Tree, write:  
The National Register of Big Trees,  
American Forestry Association,  
P.O. Box 2000, Dept. BT,  
Washington, DC 20013.

*America's Living Landmarks.  
Their preservation is  
every American's concern.*





# BOOKSTORE

## 010 - ADVANCES IN TURFGRASS PATHOLOGY

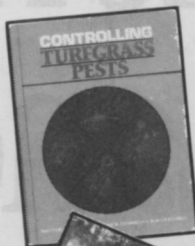
by Joyner and Larsen  
Leading U.S. turf pathologists report on turfgrass diseases, pythium blight, snow molds, fairy rings, leaf spot of Kentucky bluegrass in Minnesota, initial and field fungicide screening, turfgrass disease resistance, etc. Contains new ideas on how to combat turfgrass problems. **\$27.95**

## 220 - CONTROLLING TURFGRASS PESTS

by Shurtleff, Fermanian, Randell  
New comprehensive guide provides the most up-to-date information available on the identification, biology, control and management of every type of turfgrass pest. **\$48.95**

## 230 - LAWNS-Third Edition

by Dr. Jonas Vengris and Dr. William A. Torello  
Designed as a textbook or a practical usage manual, this book has been completely brought up-to-date. Care of lawns and turfgrass, from selection of varieties to maintenance of established grass is completely covered. **\$27.95**



## 235 - LAWN CARE: A HANDBOOK FOR PROFESSIONALS

by H. Decker, J. Decker  
Written by turfgrass professionals, this handy guide will be invaluable for playing field managers, golf course managers, or any lawn care practitioner. Covers all aspects of turfgrass management. **\$48.95**

## 640 - TURF IRRIGATION MANUAL

by James Watkins  
A guidebook for engineers, architects, designers and contractors. Keeps pace with the latest developments in turf and landscape irrigation. Specific chapters devoted to rotary sprinkler design systems. Golf course design systems and expanded engineering and reference material. **\$28.50**

## 615 - TURF MANAGEMENT FOR GOLF COURSES

by James 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 design and construction, turf management, course administration, irrigation, equipment and disease and pest control. Fully illustrated. **\$68.00**

## 620 - TURF MANAGEMENT HANDBOOK

by Howard Sprague  
Practical guide to turf care under both healthy and poor turf conditions. Chapters cover turf in cooler and warmer regions, fertilizer use, regular turf care, weed and disease control and special turf problems. Useful seasonal schedules for management of turf areas. **\$26.60**

## 630 - TURFGRASS: SCIENCE AND CULTURE

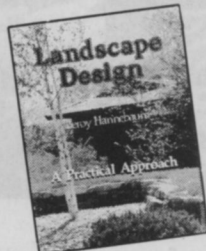
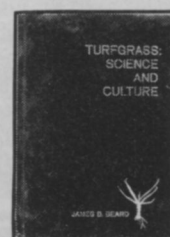
by James Beard  
Comprehensive basic text and reference source used in many leading university turf programs. Includes findings of current research compiled from more than 12,000 sources. **\$54.95**

## 225 - TURFGRASS MANAGEMENT

by A.J. Turgeon  
Revised edition. Covers the latest developments in turfgrass science and technology. Heavily illustrated with dozens of new drawings. Provides specific recommendations for applying the newest pesticides, fertilizers and other materials to combat turfgrass problems. A valuable reference for diagnosing problems and determining their causes. **\$54.95**

## 110 - TURF MANAGERS' HANDBOOK-Second Edition

by Daniel and Freeborg  
ENTIRELY UPDATED. A practical guide for the turf practitioner. Chapters on grasses, growth regulators and diseases have had extensive modification. Innovations resulting from research and practice have been added to reflect the current techniques available for turf managers. **\$32.95**



## 345 - COST DATA FOR LANDSCAPE CONSTRUCTION 1990

Kathleen W. Kerr, Editor  
An updated unit cost data reference for designers and cost estimators. Developed to fill the tremendous need for detailed landscape construction cost data. Laid out in easy-to-use CSI format. Annual. **\$39.95**

## 300 - LANDSCAPE DESIGN: A PRACTICAL APPROACH

by Leroy Hannebaum  
Geared for the commercial designer/salesperson, this is a one-stop guide to the landscape design process. Covers the entire highly competitive field including design analysis techniques, pointers on land forms, specialized business landscaping methods, environmental design guidelines, specifications, estimations, bids. **\$54.95**

## 320 - LANDSCAPE REJUVENATION

By Bonnie Lee Appleton  
Explains how to rejuvenate a landscape renovation. Included is information on how to make an appraisal of the landscape, how to determine landscape needs, maintenance considerations, how to execute a landscape renovation. **\$15.95**

## 375 - RESIDENTIAL LANDSCAPES

by Gregory M. Pierceall  
An excellent reference for individuals involved in the design and development of plantings and constructed features for residential sites. Illustrations and actual residential case study examples are used to communicate graphic, planning and design concepts which are the focus of this text. **\$55.95**

## 370 - LANDSCAPE OPERATIONS: MANAGEMENT, METHODS & MATERIALS

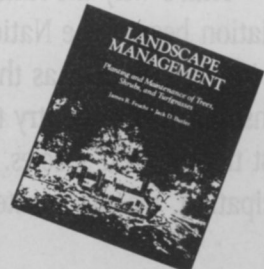
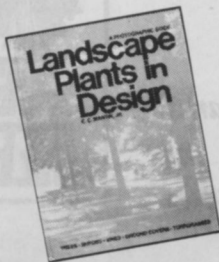
by Leroy Hannebaum  
An in-depth examination that combines technical training in landscape science with methods of accounting, business management, marketing and sales. Discusses effective methods for performing lawn installations, landscape planting and maintenance. Step-by-step accounting calculations are explained in simple terms. **\$54.95**

## 365 - LANDSCAPE PLANTS IN DESIGN

by Edward C. Martin  
An annotated black & white photographic guide to the design qualities of ornamental plants and their aesthetic and functional use in landscape designing. Over 600 trees, shrubs, vines, ground covers and turfgrasses are described in non-technical language. Over 1900 photographs. Provides a basis for selecting the best plant materials for any particular use in landscape design. Contains detailed indexes that provide quick reference to particular design qualities and growing conditions. **\$68.95**

## 305 - LANDSCAPE MANAGEMENT

by James R. Feucht and Jack D. Butler  
Planting and Maintenance of Trees, Shrubs, and Turfgrasses. Describes the basic principles of cultural management of installed landscapes. The important factors of plant growth, soils and fertilizers, improved planting techniques and new pruning techniques, integrated pest and disease management, and spray-equipment calibration and care are all featured. **\$35.95**



# BOOKSTORE

## 410 - DISEASES & PESTS OF ORNAMENTAL PLANTS

by Pascal Pirone  
This standard reference discusses diagnosis and treatment of diseases and organisms affecting nearly 500 varieties of ornamental plants grown outdoors, under glass or in the home. Easy to understand explanations of when and how to use the most effective fungicides, insecticides and other control methods. **\$39.95**

## 430 - DISEASES OF TREES AND SHRUBS

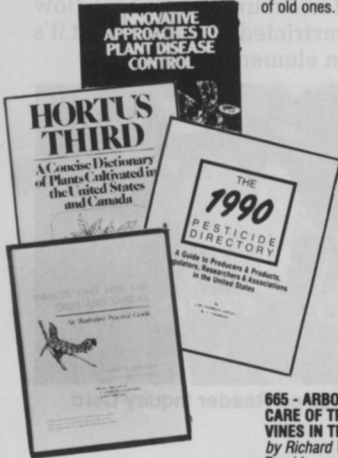
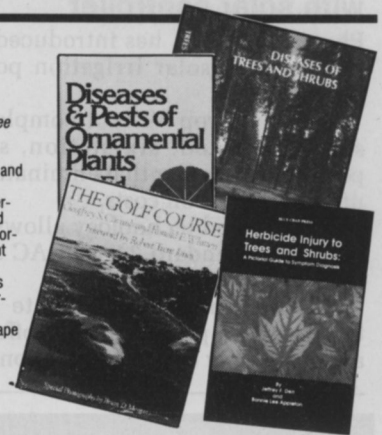
By Wayne Sinclair, Howard Lyon and Warren Johnson  
A comprehensive pictorial survey of the diseases of, as well as the environmental damage to, forest and shade trees and woody ornamental plants in the United States and Canada. Reflects the most important developments in fungal biology and taxonomy, plant bacteriology, virology, and environmentally induced stress in plants. Summarizes information about newly discovered diseases and provides up-to-date accounts of old ones. **\$52.50**

## 800 - THE GOLF COURSE

by Cornish and 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 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**

## 420 - HERBICIDE INJURY TO TREES AND SHRUBS

By Jeffrey F. Derr and Bonnie Lee Appleton  
Describes how to diagnose herbicide damage to nursery crops and landscape ornamentals. Injury symptoms resulting from the herbicides used today are described and compared to other plant disorders to assist in diagnosing plant problems. Tables list common names, trade names, major uses and injury symptoms for the herbicides currently used in agronomic, horticultural, landscape and noncrop areas. **\$24.95**



**510 - HORTUS THIRD**  
from Cornell University  
A 1,300 page concise dictionary of plants cultivated in the United States and Canada. A reference which every horticulture professional should have. **\$135.00**

**415 - INNOVATIVE APPROACHES TO PLANT DISEASE CONTROL**  
by Ian Chet  
Brings together alternative approaches and methods that have potential to control diseases caused by fungi, bacteria and viruses. Major concepts of disease control discussed include biological control systems, their possible mechanisms, potential application and genetic improvement. **\$54.95**

**690 - INSECTS THAT FEED ON TREES AND SHRUBS**  
by Johnson and Lyon  
Essential information for identifying more than 650 insect pests and the injuries they cause. More than 200 color illustrations. **\$49.95**

**500 - THE 1990 PESTICIDE DIRECTORY**  
by Lori Thomson Harvey and W.T. Thomson  
A Guide to Producers and Products, Regulators, Researchers and Associations in the United States. For the person who needs to know anything in the United States pesticide industry. **\$75.00**  
Available in March 1990

## 665 - ARBORICULTURE: THE CARE OF TREES, SHRUBS AND VINES IN THE LANDSCAPE

by Richard W. Harris  
Provides comprehensive coverage of complete planting, site analysis, preparation and special planting methods, fully detailed coverage of fertilization, irrigation and pruning guidelines on preventative maintenance, repair and chemical control, how-tos of diagnosing plant problems, practical data on non-infectious disorders, diseases, insects and related pests and pest management. **\$63.00**

## 450 - HANDBOOK OF PLANTS WITH PEST-CONTROL PROPERTIES

By Michael Grange and Saleem Ahmed  
Provides information on approximately 2,400 plant species having pest-control properties in addition to the plant's specific common and family names, coded information is provided on such plant characteristics as life cycle, classification, and the ecological conditions suited for growth. Also lists 1,000 plants that are potential candidates for screening pest-control activity due to their poisonous nature or their ability to control human and animal diseases. **\$49.95**

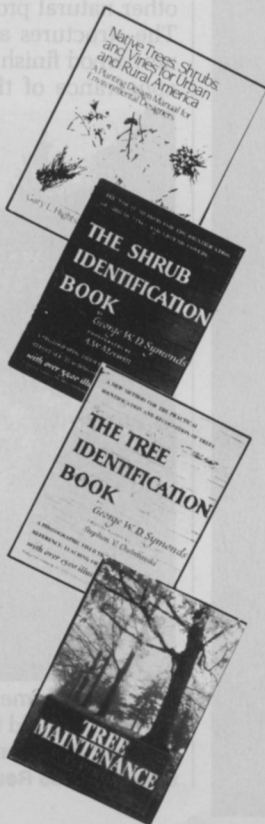


## 125 - SCIENTIFIC GUIDE TO PEST CONTROL OPERATIONS

by G.W. Bennett, J.M. Owens, R.M. Corrigan  
Fourth Edition. New chapters on fumigation, urban wildlife, special facilities, plus updated, improved chapters on pesticides, cockroaches, birds, termites, equipment, sanitation, stored product pests and more. Don't be without this updated edition. **\$49.95 Domestic All Others \$60.00**

## 400 - NATIVE TREES, SHRUBS, AND VINES FOR URBAN AND RURAL AMERICA

by Gary L. Hightshoe  
This award-winning reference to native U.S. plants has now been expanded to include shrubs and vines. Over 250 major species are characterized by form, branching pattern, foliage, flower, fruits, habitat, soil, hardiness, susceptibility, urban tolerance and associate species. Includes unique color-coded keys that classify plant species by visual characteristics, cultural requirements and ecological relationships. **\$86.00**



## 720 - SHRUB IDENTIFICATION

by George Symonds  
Pictorial key to identify shrubs. Contains more than 3,500 illustrations to check specimens. Popular and botanical names are given for each shrub and handy index tabs for quick reference. **\$17.95 paperback**

## 750 - TREE IDENTIFICATION

by George Symonds  
Pictorial reference to identifying trees by checking leaves, buds, branches, fruit and bark. Like its sister publication, SHRUB IDENTIFICATION, popular and botanical names are listed with index tabs for easy reference. **\$17.95 paperback**

## 760 - TREE MAINTENANCE

by Pascal Pirone  
The sixth edition of this guide for anyone involved in the care and treatment of trees. Special sections on tree abnormalities, diagnosing tree troubles, non-parasitic injuries and assessing the suitability of different trees. **\$45.00**

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## Manage irrigation systems with solar controller

Photocomm, Inc., has introduced the Sundrop VI, solar irrigation power system.

The Sundrop VI is a completely self-contained, six-station, solar powered controller that eliminates all utility connection costs.

Its patented technology allows operation of standard 24-volt, AC solenoid control valves.

The Sundrop VI solid-state controller is fully programmable, offering a wide variety of program options for

use in any climate or application.

The controller installs quickly, and comes with all the necessary components, including the new unbreakable Duravolt Solar Module.

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## Filter rust, dirt out of diesel, gas fuel

GoldenRod bowl-type filters do double duty in removing rust, dirt, scale, lint and water from gasoline or diesel fuel as it leaves the tank.

Each filter has a different function. Model 495 is designed to remove microscopic particles as small as 10 microns at a 5 gpm gravity flow rate with a 24-inch head. The replaceable filter element has 366 square inches of filter surface for efficient action.

The 495 can be placed in-line to work in combination with model 496 Water-Block filter. The 496 has the same physical construction and dimensions and differs only in its special element offering excellent water absorption and 15 micron particle filtration.

As water accumulates, fuel flow becomes restricted, signalling that it's time for an element change.



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# Mustang Today.

**Just look at us now!** You've known Mustang as a rugged line of skid steer loaders. But now we're also two-wheel and four-wheel drive site dumpers. We're single and double-drum vibratory rollers for surface compaction. And, we're self-propelled aerial work platforms.

Today, Mustang is the product line committed to delivering the performance you need on the job.



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## Curved woods add flair to landscape designs

Carousel Wood Products, of Arnold, Pa., announces the invention of curved, pressure-treated wood products.

Curved fences, arched arbors, curved bridges, tree seats, curved decks, and other natural products look traditional. The structures are then coated with a new wood finish that protects the fresh appearance of the wood products for



years of enjoyment. Artisans who know hard work mold the strength and beauty of wood into works of art.

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