engines under a joint venture agreement for the car and other potential Chinese applications. In addition to the 16 hp engine, the venture group, called Puling-Briggs & Stratton Engine Corp., will build a 10 hp model as well.

The Chinese mini-car will travel at speeds up to 35 miles per hour. It is intended for short-distance use on the new roads China is building to link cities and suburban and rural areas. Other applications could be as a taxi or delivery vehicle.

LANDSCAPING

Round house solves maintenance woes

How far will a man go to “get around” maintaining his property? Apparently the full 360 degrees.

That’s the case with Ronald Farrell, 55, a commercial fisherman in South Dayton, New York, who decided he’d rather spend his time and money tracking Lake Erie walleye than maintaining his house. He designed and built this circular home in six months by stacking 16-inch lengths of Tamarac wood and mortaring them in place. The walls are eight feet high and support a waterproof roof that is topped by 10 inches of topsoil and seeded with a legume and wildflower mixture.

The house, which rests on his seven acre lot, is exceptionally energy-efficient, cost about as much as a pickup truck and, except for a triannual haircut with an Echo trimmer, is virtually maintenance free.

“More than that, I think it tells the younger fellas that for next to nothing you can have yourself a nice home without the big banks and the big mortgage payments,” said Farrell. “If you got the spirit, the get-up-and-go, you can do it.”

Ronald Farrell’s round house in South Dayton, NY was inexpensive to build and is easy to maintain.

continued on page 22
NEWS from page 21
NEW PRODUCTS

Compound controls unwanted tall fescue

A new compound developed through research at Iowa State University selectively controls tall fescue in a number of established grasses.

The compound, chlorosulfuron, is a product of E.I. Du Pont de Nemours marketed by Lesco as Lesco TFC. The dispersible granular herbicide is labeled for established Kentucky bluegrass, fine fescue, bentgrass, bahiagrass and Bermudagrass.

Tests on annual bluegrass tolerance were inconclusive, in one instance showing tolerance, and in another showing damage, according to Nick Christians, Ph.D., Iowa State. The product will kill perennial ryegrass.

The compound was originally tested as a low-use-rate broadleaf weed controller. But it also discolored tall fescue contaminating Kentucky bluegrass plots, leading to tests to control tall fescue by Christians and D.J. Laroque at Iowa State in 1982 and 1983.

Greenhouse trials showed chlorosulfuron's effect on tall fescue was slow, taking four weeks to show signs of damage, eight for complete kill. The compound was also effective in fall uses even when the tall fescue went into dormancy.

PRODUCTS

Carpet produces lightweight sod

Fast Grass, Inc. is trying to take some of the backache out of laying sod. The Oxnard, Calif., company purchased the rights to manufacture and distribute a jute and hemp carpet inlaid with grass seed at the factory. When rolled out on plastic and watered, the carpet produces a saleable stand of turf in about 45 days. Without dirt.

The carpet, developed and tested successfully in Europe, weighs about 70 pounds in a four- by 100-foot roll. When the turf is grown, the roll is cut into 25-foot sections for easy handling by one person. This is considerably less burdensome than the average roll of conventional sod.

Because of this, the owners of Fast Grass—Doug Cowle and Evan Melby—are hoping to sell the product to sod farmers, landscapers and even homeowners. They see a day when the homeowner can go into the supermarket, buy a 50-square-foot roll and grow it themselves to replace dead spots. The carpet could also have a home on golf courses and in areas requiring erosion control.

The two men estimate the cost of the carpet will be about the same as dirt-grown sod, but that the carpet can lead to savings in labor and water costs. Large harvesting equipment won't be needed, and less water is

Move water the easy way . . .

with an Otterbine® Floating Portable Pump

Just throw it in and start it! These self-priming pumps with built in strainers are made for quick starts and smooth running. Drain water from: ditches, sand bunkers, swimming pools, holding ponds — any flooded area! Irrigates and much more.

DEPENDABLE: Four stroke Briggs & Stratton engine means years of trouble free service.
PORTABLE: Can be operated by just 1 person.
EASY TO USE: No mixing of gas and oil, can be operated in just 3 inches of water.
HIGH VOLUME: Delivers pumping power WHEN and WHERE you need it!

Set it and forget it — the Otterbine Floating Portable Pump

For more information call or write:

R.D. 2, P.O. Box 217
Emmaus, PA 18049
USA
(215) 965-6018

Circle No. 102 on Reader Inquiry Card

22 LANDSCAPE MANAGEMENT/SEPTEMBER 1988
THE STRONG, SILENT TYPE.

Now you can have the strength and reliability of a Kohler Command engine, at quieter-than-ever engine noise levels.

Kohler Command vertical shaft engines are available with an optional Quiet Plus™ package that lowers sound level output significantly.

In fact, in a recent test performed at the Kohler engine sound laboratory, the CV 12.5 with Quiet Plus registered sound power levels two to four dBA's below three competitive engines of similar horsepower. These new levels of quiet will help you meet stringent EEC noise standards without sacrificing torque or power.

Command engines also offer overhead valves; Kohler's electronic ignition system; full pressure lubrication; full flow oil filters; hydraulic lifters and more. Oil Sentry™ protection is available.

For more information about Kohler Quiet Plus or the complete line of Command engines write Kohler Co., Engine Division, Kohler, Wisconsin 53044. Or call 414-457-4441.

Circle No. 136 on Reader Inquiry Card
used since the plastic underlay keeps more moisture in the root area.

In addition to the four-foot-wide roll, the carpet also comes in 12-foot-wide rolls. Possible spinoffs for the carpet include flower and vegetable seed worked into the fabric.
LEAVE THE COMPETITION OUT IN THE COLD

To meet the demands of on-site transportation in the most inclement weather, Daihatsu has developed the all-new, off-road, 6 passenger Window Van. Dual sliding doors allow ease of entry and movement and the third seat can be folded down and forward for additional cargo space.

4-WHEEL DRIVE NOW AVAILABLE**

Steep inclines, mud, snow and ice are no problem for Hijet’s all-new 4WD models. With a push of a button the option is yours; 2WD, 4WD, or a walking speed sub-transmission that allows you to maintain a constant 2 mph.

HIJET MEANS VALUE

Hijet’s incredible quality, reliability and versatility, low cost of maintenance, less down time and low operating costs, all contribute to Hijet’s incomparable value.

Combine the money you save with the higher productivity of your work force and you’ll see why Hijet is the answer to your needs.

ABOVE ALL: SERVICE

Daihatsu is committed to your complete satisfaction. We back every Hijet with a parts and service organization capable of delivering within 24 hours. And with an ever-expanding network of Hijet dealers, Daihatsu will work just as hard as your Hijet.

To learn more about the amazing versatility of the Hijet product line, call us at our headquarters in Los Alamitos, California. 1-800-777-7070. Today, Tomorrow, You’ll think the world of Daihatsu.

Daihatsu America, Inc.
4422 Corporate Center Dr.
Los Alamitos, CA 90720

Fueled by Gasoline or LPG*

Every Hijet is powered by an efficient 547-cc, 3-cylinder, single overhead cam, water-cooled engine, delivering more horsepower than the competition without sacrificing Hijet’s inherent quietness, efficiency and comfort. Now available in both gasoline and liquid propane gas (LPG) configurations, Hijet can handle any environment from Turf and Grounds, Airline Terminals, Aerospace installations, Nurseries, Resort Hotels, State and Local Municipalities, U.S. Military Bases and Industrial Sites.

Daihatsu spent 30 years testing, proving and driving over the toughest terrain on 5 continents. The result: the versatile, durable and economical Hijet.

With payload capacities of up to 1750 lbs., rack and pinion steering, MacPherson strut suspension, 4-speed fully synchronized transmission and a minimum turning radius of 42½ feet, Hijet has worked its way all over the world.

FUELED BY GASOLINE OR LPG*

Every Hijet is powered by an efficient 547-cc, 3-cylinder, single overhead cam, water-cooled engine, delivering more horsepower than the competition without sacrificing Hijet’s inherent quietness, efficiency and comfort. Now available in both gasoline and liquid propane gas (LPG) configurations, Hijet can handle any environment from Turf and Grounds, Airline Terminals, Aerospace installations, Nurseries, Resort Hotels, State and Local Municipalities, U.S. Military Bases and Industrial Sites.

Daihatsu spent 30 years testing, proving and driving over the toughest terrain on 5 continents. The result: the versatile, durable and economical Hijet.

With payload capacities of up to 1750 lbs., rack and pinion steering, MacPherson strut suspension, 4-speed fully synchronized transmission and a minimum turning radius of 12½ feet, Hijet has worked its way all over the world.

FUELED BY GASOLINE OR LPG*

Every Hijet is powered by an efficient 547-cc, 3-cylinder, single overhead cam, water-cooled engine, delivering more horsepower than the competition without sacrificing Hijet’s inherent quietness, efficiency and comfort. Now available in both gasoline and liquid propane gas (LPG) configurations, Hijet can handle any environment from Turf and Grounds, Airline Terminals, Aerospace installations, Nurseries, Resort Hotels, State and Local Municipalities, U.S. Military Bases and Industrial Sites.

Daihatsu spent 30 years testing, proving and driving over the toughest terrain on 5 continents. The result: the versatile, durable and economical Hijet.

With payload capacities of up to 1750 lbs., rack and pinion steering, MacPherson strut suspension, 4-speed fully synchronized transmission and a minimum turning radius of 12½ feet, Hijet has worked its way all over the world.

FUELED BY GASOLINE OR LPG*

Every Hijet is powered by an efficient 547-cc, 3-cylinder, single overhead cam, water-cooled engine, delivering more horsepower than the competition without sacrificing Hijet’s inherent quietness, efficiency and comfort. Now available in both gasoline and liquid propane gas (LPG) configurations, Hijet can handle any environment from Turf and Grounds, Airline Terminals, Aerospace installations, Nurseries, Resort Hotels, State and Local Municipalities, U.S. Military Bases and Industrial Sites.

Daihatsu spent 30 years testing, proving and driving over the toughest terrain on 5 continents. The result: the versatile, durable and economical Hijet.

With payload capacities of up to 1750 lbs., rack and pinion steering, MacPherson strut suspension, 4-speed fully synchronized transmission and a minimum turning radius of 12½ feet, Hijet has worked its way all over the world.
Smeal notes that the opportunities for horticulturists are excellent since about five to 10 positions are available for every graduate.

**DEALERS**

**Deere distributors now selling seed**

Turf-Seed Inc. of Hubbard, Ore., has entered into an agreement with the John Deere Golf & Turf Group to provide proprietary turf cultivars for sale by the 50 Deere distributors in the U.S. and Canada.

"Providing turf seed is another way we intend to provide our distributors and customers with products and services that help superintendents increase productivity and maintain high standards of turf quality," says Ken Edwards, manager of golf and turf products at Deere.

Turf-Seed president Bill Rose says that Bill Meyer, Ph.D., and Crystal Rose Fricker will research new varieties for Deere’s distribution. "We appreciate the opportunity to work closely with a quality-conscious organization like John Deere," Rose says.

**New newsletter serves landscapers**

In-site is a new bi-monthly newsletter written specifically for landscape management executives. It takes a practical “how-to” approach to the science of landscape management.

The editorial staff of the newsletter includes experts in many of the landscape design and management disciplines including horticulture, architecture, agronomy, urban forestry, arboriculture and advanced business management.

To receive a complimentary issue of In-site, send a post card with your name, title, company name and address to: In-site editor, 24380 N. Highway 45, Vernon Hills, IL 60061 or call (312) 634-8888.

**Gravely International**

Runners competing in the Gravely International Five-Mile Run start a course that winds through scenic backroads in rural North Carolina and ends up here—the headquarters of Gravely International, manufacturer of outdoor power equipment. The race was a highlight of the festivities that surrounded the Third Annual Gravely Open House, held at Gravely’s Clemmons, N.C., headquarters at the end of May. Runners from as far away as California competed.
TRIPLEX MOWING REDEFINED.

Diesel power, hydraulically-driven reels and on-demand 3-wheel drive make the Jacobsen Tri-King 1671D the finest value on fairway or fringe.

The new 1671D delivers unmatched quality of cut in a compact lightweight triplex, plus the durability and ease of operation you need for years of day-in, day-out mowing.

Liquid-cooled 16.5-hp diesel provides plenty of smooth running power with longer life, simpler maintenance and better fuel economy.

Hydraulically-driven reels deliver the consistently fine quality of cut you can depend on even in tough grasses and lush, wet, heavy growth. You get better control of cutting frequency, and no belts to slip or wear out.

On-demand 3-wheel drive (optional) lets you conquer your toughest hills and most demanding mowing. Its compact, balanced design and foot-controlled hydraulic lift with automatic reel shutoff provide outstanding ease of operation. Together with 8 mph transport speed, they make the 1671D a quick, productive lightweight trimming mower second to none.

See why the Jacobsen 1671D is in a class by itself. Ask your Jacobsen distributor for a demonstration today.

Jacobsen Division of Textron Inc., Racine, WI 53403.
Every once in a while, landscape managers must confront problems for which they don’t have immediate answers. If they knew the vast array of books, brochures, video tapes and pamphlets available for turf and tree care, references would be no problem.

Here are some of the publications and videos being made available to the turf and tree managers which have crossed the LANDSCAPE MANAGEMENT editorial desks in the last few months. Some are free, others have prices up into the hundreds of dollars:


ATHLETIC TURF: “Sidelined” and “Hard Knocks,” reprints from LANDSCAPE MANAGEMENT, $5.50 each, for non-members; Kathleen Maciuszko, HBJ Publications, 7500 Old Oak Blvd., Cleveland, OH 44130.


BUSINESS: “Marketing Plan Manual,” 34 pages, free to new G.C.A. members, $25.00 to others; Golf Course Association, 8030 Old Oak Blvd., Suite 228, Minneapolis, MN 55420.


ENDANGERED WILDFLOWERS: Endangered Wildflowers calendar, $6.95; Wildflower Rediscovery Project, American Horticultural Society, P.O. Box 0105, Mt. Vernon, PA 22121.

ENGINE REPAIRS: “Troubleshooting Carburetors” and “Understanding Ignition Systems,” videotapes, NPL; Tecumseh Engine and Gear Service Div., 900 North St., Grafton, WI 53024.

ESTIMATING: “Estimating and Management Principles for Landscape Contractors,” 150 pages, $51; Charles Vander Kooi, P.O. Box 621414, Littleton, CO 80162.

FACILITIES: “Facilities Management,” 864 pages, $70 ($50 to members of APPA); Association of Physical Plant Administrators of Colleges and Universities, 1446 Duke St., Alexandria, VA 22314-3492.

GOLF COURSES: “Planning the Municipal Golf Course,” 12 pages, free; American Society of Golf Course Architects, 221 N. LaSalle St., Chicago, IL 60601.

GOLF COURSES: “Evolution of the Modern Green” by Michael A. Hurdzan, Ph.D., brochure, $5, American Society of Golf Course Architects, 221 N. LaSalle St., Chicago, IL 60601.

HAZARDOUS WASTE: “Hazardous Waste Regulation, the New Era” by Richard C. Fortuna and David J. Lennett, 400 pages, $59.50; McGraw-Hill, P.O. Box 400, Highstown, NJ 08520-9989.


INSECTS: “Controlling Lawn and Garden Insects,” 96 pages, $6.95; available in garden stores coast to coast; more information: Ortho Information Service, 575 Market St., San Francisco, CA 94105.

INTEGRATED PEST MANAGEMENT: “Least Toxic Lawn Management,” 26 pages, $6.10; BIRC, P.O. Box 7414, Berkeley, CA 94707.


IRRIGATION: “Turf Irrigation Manual” by James A. Watkins, book, more information from Weather-matic, P.O. Box 18205, Dallas, TX 75218.

LANDSCAPE DESIGN: “Fast and Effective Plan View Drawing Methods,” “Color Rendering Techniques for Presentation Drawings,” 90 and 75 minutes, $95.95 each, $155 together; The Idea Bank, 100 E. Apache Blvd., Suite 211, Tempe, AZ 85281.

...WHAT IT TAKES TO UNLOAD IN SECONDS

When you work with your truck for a living, why not let it do more work faster? After all, you do have a choice. The E-Z DUMPER can hold and unload over 4,000 lbs., or two cubic yards of sod, mulch, gravel, topsoil, corn, coal or whatever else you need to transport.

EASY TO INSTALL
The E-Z DUMPER comes ready to install. We even provide hydraulic fluid. Just slide the dumper into the truckbed, secure it with bolts and holes already on your truck and you're ready to go. No alterations required.

EASY TO OPERATE
The fully hydraulic dump unit operates off any 12-volt truck battery. To empty a payload, simply open the tailgate (either from top or bottom) and turn the key. A full 47° dump angle assures fast, clean unloading.

BUILT TO LAST
With a fourteen-gauge steel body supported by a high-strength structural steel frame, this unit lasts for years of reliable service. In fact, you'll probably need a new truck before you need a new E-Z DUMPER.

PROTECT YOUR INVESTMENT
The rugged and reliable E-Z DUMPER also protects your truck from truckbed damage, increasing its trade-in value while making your job easier.

EXCLUSIVE JERR-DAN PROGRAMS
We don't just claim to have the most durable dumpers on the market, we guarantee it. Jerr-Dan offers the industry's only extended 3-year warranty: The Gold Star Protection Plan.

We also offer the Jerr-Dan REDLINE Parts Service, the industry's only 24-hour supply program that provides replacement parts when you need them. Jerr-Dan also provides exclusive single source leasing to give you highly competitive rates that eliminates the hassles of dealing with third-party financial institutions or leasing companies.

FOR MORE INFORMATION
To see how easy your job could be call 1-800-248-6000 for a free demonstration. In Pennsylvania, 1-800-842-4000.

HEADQUARTERS 1-800-248-6000, PA only 1-800-942-4000. Other offices located in St. Louis, MO., Chicago, IL, Atlanta, GA., Cincinnati, OH., Los Angeles, CA., Dallas, TX., In Canada, H.R. Runciman & Co., Ltd.
LANDSCAPE DESIGN: "Landscape with Perennials," 302 pages, $34.95; Timber Press, 9999 S.W. Wilshire, Portland, OR 97225.


LANDSCAPE ESTIMATING: "Estimating and Management Principles for Landscape Contractors" by Charles VanderKooi, book, $49 plus $2 shipping; CVK, P.O. Box 621414, Littleton, CO 80162.

LANDSCAPE ESTIMATING: "Means Landscape Estimating" by Sylvia Hollman Fee, 225 pages, $41.95; R.S. Means, 100 Construction Plaza, Kingstown, MA 02364.

LAWN CARE: "Common Sense Answers to Turf Care Questions," video, $20; Professional Lawn Care Assn. of America, 1225 Johnson Ferry Rd. NE, Suite B-220, Marietta, GA 30068.


LAWN CARE: Total Turf Management Program (booklets, reports), NPL; Communications Dept., Nor-Am Chemical Co., P.O. Box 7495, Wilmington, DE 19803.


LIGHTING: National Lighting Bureau, brochure on security and outdoor lighting, free; National Lighting Bureau, 2102 L. St., NW, Suite 300, Washington, DC 20037.


PECTICIDES: "Working with Pesticides," two videos. $149.95; The Idea Bank, P.O. Box 23994, Tempe, AZ 85282.


PECTICIDES: "Working with Pesticides" videotape; more information from Direct Safety Co., 7815 S. 46th St., Phoenix, AZ 85044.

PECTICIDES: "Tree, Turf and Ornamental Pesticide Guide," $14.00 plus tax; Thomson Publications, P.O. Box 9335, Fresno, CA 93791.


PLANTS: Hortus Third" by John Seeley, 1,034 pages, $99.50; MacMillan Publishing, 100 H Brown St., Riverside, NY 08075.

PLANTS: "Production of Landscape Plants" and "Establishment and Maintenance of Landscape Plants" by Carl Whitchrom, 480 pages and 618 pages respectively, $28.00 each; Lacebark Publications, Route 5, Box 174, Stillwater, OK 74074.

PLANTS: Nursery/Landscape Plant Identification cards (116-card set), $40; University of Illinois, Vocational Agriculture Service, College of Agriculture, 1401 S. Maryland Dr., Urbana, IL 61801.

PLANTS: "Improving the Quality of Urban Life with Plants," book, $21.25; Amy King, Institute of Ecosystem Studies, Cary Arboretum, Box AB, Millbrook, NY 12545.


SAFETY: "Fire Safety," VHS videotape, $60; Lisa M.K. Zetterberg, 6650 Bealleau Wood Lane #209, Sacramento, CA 95822.

SAFETY: "Accident Prevention" and "Pesticide Application Techniques" videotapes; more information from National Arborist Association, 174 Route 101, Bedford, NH 03102.

SAFETY: Products for safety, 44 pages, catalog supplement, free; Direct Safety Co., 7815 S. 46th St., Phoenix, AZ 85044.


TREES: "Arboriculture" by Richard W. Harris, 680 pages; more information from Prentice-Hall, Englewood Cliffs, NJ 07632.

TREES: "On Target" (tree spraying), 3 videotapes, $150 NAA members, $300 non-members; National Arborist Association, 174 Route 101, Bedford, NH 03102.

TREES: "Pruning Your Own Shrubs and Small Trees," 31-minute videotape, $37.95; Agricultural Communications Center, University of Idaho, Moscow, ID 83843.


TREES: "A New Tree Biology," by Dr. Alex Shigo, 597 pages, $48.50; Arborist Supply House, P.O. Box 23607, Ft. Lauderdale, FL 33307.

TREES: "A New Tree Biology Dictionary," by Dr. Alex Shigo, 132 pages, $12.50; Arborist Supply House, P.O. Box 23607, Ft. Lauderdale, FL 33307.

TURFGRASS: "Lawns" by Jonas Vengris, Ph.D. and William A. Torello, Ph.D., 240 pages, $15.50; Thomson Publications, P.O. Box 9335, Fresno, CA 93791.

TURFGRASS: "Turfgrass for Lawn Care," "Turfgrass for Golf Courses," 2 videotapes, $20 each; Loft's Inc., Research Dept., P.O. Box 146, Bound Brook, NJ 08805.

TURFGRASS: "Turfgrass Management, Revised Edition" by A.J. Turgeon; more information from Reston Publishing, c/o Prentice-Hall, Book Distribution Center, Route 59 at Brook Hill Drive, West Nyack, NY 10994.


WEEDS: Weed identification fact sheets, 16 pages, $5; Publications Distribution Center, 112 Agricultural Administration Bldg., University Park, PA 16802.


