



Above, Dr. R. W. Engel discusses bluegrass fertilization plots. Below, Dr. P. M. Halisky explains disease control on bentgrass.



Above, shadehouses allow experiments under controlled shade. Below, C. W. Bussey evaluates preemergent crabgrass controls.

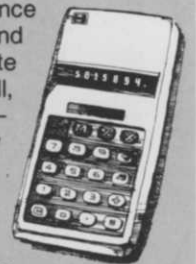


We demonstrate. You calculate.



The Diggin' Dutchman is giving away **free calculators*** . . . just for the opportunity to demonstrate his labor-saving Vermeer Tree Spades. Frankly, it's a good deal for both of us. It gives you a chance to compare Vermeer with older, costlier transplanting and tree-balling methods . . . and it lets Vermeer demonstrate any one of seven all-hydraulic Tree Spades that dig, ball, transport and transplant any tree up to 6" in diameter — in minutes. It's a proven, patented labor-saver, used by nurseries, landscapers, tree farms, developers, municipalities, golf courses and parks everywhere.

Interested? Ask your Vermeer dealer for a demonstration on Vermeer Tree Spades, Stump Cutters, Log Splitters, Trenchers or any Vermeer equipment. He'll be happy to show you the machine best-suited for your operation . . . and give you a **free calculator** to help you formulate your own answers.



Find out why Vermeer Tree Spades transplant more trees and bushes than all other machines combined. **Write —**

Vermeer



THE DIGGIN'
DUTCHMAN

*Offer limited to one free calculator per customer upon completion of demonstration on customer property or job site. Offer expires at discretion of Vermeer Manufacturing Company.

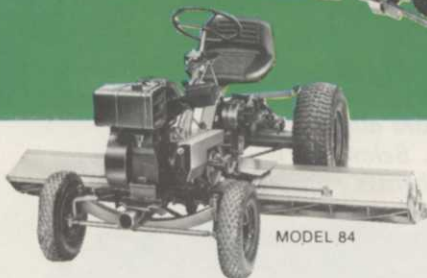
6109 NEW SHARON RD • PELLA, IOWA 50219 • (515) 628-3141

Reely rugged!... and economical!

■ Since 1919 National has built completely functional, easily maintainable reel mowers. We skimp on styling in order to lower initial cost. National mowers are ruggedly built for extra years of service.

NATIONAL REEL MOWERS FEATURE:

- Maneuverability and superb performance on banks and hillsides
- Automotive-type transmissions
- Heavy-duty, tubular steel frames
- Upruned bed bar lips for extra wear
- Power-driven, free-floating reels that follow ground contour without skip or scalp.



MODEL 84



MODEL 68

Power Quint

Five powered reels cut an 11½ foot swath

84-Inch Triplex

Width of cut—7 feet.
Mows up to 5 MPH.
Transport speed—12 MPH.

68-Inch Triplex

Cuts 68" swath.
Forward and reverse speeds up to 4 MPH.



Requires less pulling power than any unit its size.

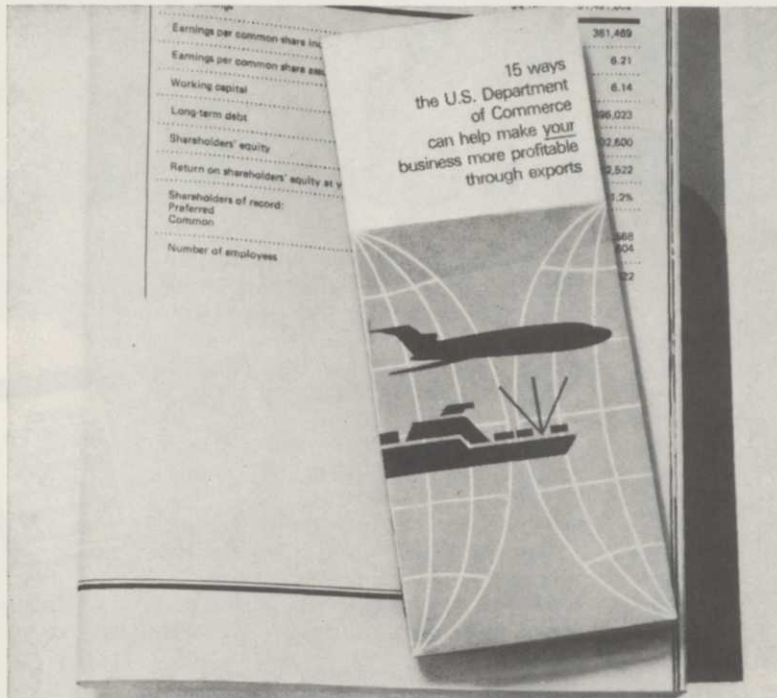
Write for detailed literature



NATIONAL MOWER COMPANY

860 Raymond Avenue • St. Paul, Minnesota 55114
Phone: 612/646-4079

Circle 158 on free information card



**It could make
a world of difference
on your bottom line.**

There are many businessmen who'll tell you that exporting has often helped turn a bad year good. Something that's been reflected in their annual reports. And that's something their shareholders could appreciate. One reason they've profited from overseas markets is the help they've received from the U.S. Department of Commerce — examples of which you'll find included in this brief but business-like book. We think you'll be surprised at the programs and facilities we're ready to put at your disposal. Get started now on fleshing out those figures. Write for your free copy to The Secretary of Commerce, U.S. Department of Commerce, BIC 7B, Washington, D.C. 20230.



A Public Service of This Magazine & The Advertising Council.

Nurserymen meet in Seattle

The American Association of Nurserymen held its 102nd annual meeting, July 16-20, in Seattle, Washington. Headquartered in Washington, D.C., the association serves over 2,700 member nursery firms representing garden center operators, wholesale growers, landscape firms, mail order nurserymen and allied suppliers.

Avery H. Steinmetz, president of Stark Street Properties, was inducted into the AAN's Nurserymen's Hall of Fame, the highest honor the nursery industry may bestow. The Hall of Fame Award was conveyed to recognize truly outstanding nursery businessmen whose acts and deeds in business, home, community, and country serve as a guide and challenge for all other members of the nursery industry.

The Norman Jay Colman Award, the nursery industry's highest award for horticulture research, was presented to Dr. Haruyuki Kamemoto, renowned orchid cytologist and professor at the University of Hawaii.

The award, named after the first Secretary of Agriculture of the U.S. and a two-term president of the AAN, is granted each year to stimulate research work in the land grant universities, colleges and other research institutions.

Dr. Howard C. Brown, Dean of Agriculture and Natural Resources

at Cal Poly University, received the second L. C. Chadwick Award from the AAN. The award was established last year by the Education Committee of the AAN to honor those classroom horticulture teachers who have made their mark where it counts most — among their students. Dr. L. C. Chadwick was the first recipient.

Ed Hume received the Garden Communicator's Award. In presenting the award, immediate past president Hilscher praised Hume for his outstanding contributions towards increasing public awareness of environmental plants and landscape beautification. Hume writes regular garden columns for the "Seattle Times" and "Vancouver Columbian." He broadcasts on Seattle's KBIQ-FM and conducts the "Gardening with Ed Hume" show, aired on KING-TV in Seattle and KGW-TV in Portland each Sunday.

A Crimson King Maple, donated by the Julius Rosso Wholesale Nursery, Seattle, was presented as a gift to the people of Seattle for their gracious hospitality to the AAN. It was planted in a downtown park to be enjoyed by all citizens.

Itsuo Uenaka, president of Cupertino Nursery in Cupertino, California, was elected president of the AAN. He succeeds L. J.



Dr. Haruyuki Kamemoto receives the Norman Jay Colman Award.



Above, Ed Hume receives Garden Communicators Award. Below, l-r: R. F. Lederer, Seattle Mayor Wes Uhlman and L. J. Hilscher.



President L. J. Hilscher presents the AAN Hall of Fame Award to Avery H. Steinmetz. Sharing is his wife, Agnes.





Heals wounds; prevents decay



Cabot's Tree Healing Paint is a carefully prepared bituminous paint for protecting live wood and preventing decay. Leading arborists and foresters have been using it for almost half a century. Here are the reasons why:

- ideal for trees, shrubbery, etc.; seals, heals wounds, cuts, broken limbs, pruning abrasions.
- stimulates growth of new bark
- apply with brush or spray; produces a black, tough, elastic, quick-drying coating.
- excludes moisture; stops rot; prevents evaporation of sap
- may be used in any season

clip and mail this coupon today

Samuel Cabot Inc.
Dept. 958, One Union St.
Boston, Mass. 02108

Ship _____ pints (12 per case) @ \$1.35 each

Ship _____ gallons (4 per case) @ \$7.10

Ship _____ quarts (12 per case) @ \$2.30 each

Pruner's Applicator Jar (4 oz. jar) 95c each

Ship _____ cases (24 Applicator Jars per case) @ \$22.80 per case

Prices f.a.b. Boston less normal trade discounts

Nurserymen

Continued from page 43

Hilscher, Hilscher Nursery & Garden Center in Texas, who remains as current Director-at-Large. Uenaka, along with other officers, will direct the national efforts of the AAN in all areas including legislation and environmental improvement.

Ernest A. Tosovsky, Jr., vice president of Home Nursery Greenhouses, Edwardsville, Ill., was elected vice president. Tosovsky also serves as treasurer and director of Region III of the AAN.

John B. Wight, Jr., president and chairman of the board of Wight Nurseries, Cairo, Ga., has been re-elected to the board of directors. He serves as director of Region II, which represents over 650 member nursery firms in southern states.

Hugh Steavenson, president and owner of Forrest Keeling Nursery, Elsberry, Mo., was reelected director of Region IV, representing over 350 member nursery firms.

R. Jerry Rosso, secretary and treasurer of Julius Rosso Wholesale Nursery Company, Seattle, Wash., succeeds Itsuo Uenaka as director of Region VI, also representing over 350 member nursery firms. Rosso served as convention chairman for this year's meeting.

Kent Langlinais, Kent's Nursery, La., is director of Region VII, and Henry A. Weller is the director of Region I. □



Cecil Shirar (left) receives Wholesale Nursery Landscape Award from Hubert Nicholson, president of Wholesale Nursery Growers of America. The Award is presented for outstanding efforts in landscape beautification of Shirar's firm's grounds.



L.J. Hilscher (right) turns over the President's Gavel to Itsuo Uenaka.



New AAN officers: bottom l-r, Ernest A. Tosovsky, L. J. Hilscher, Itsuo Uenaka, Hugh Steavenson; top l-r, Kent Langlinais, Jerry Rosso, John Wight, Jr., and Henry Weller.

CIL Sulphur Coated Urea

The Number One Controlled Release Nitrogen Fertilizer



**Efficient
Effective
Economical**



1975 research plots at the University of Guelph, Canada, where Sulphur Coated Urea was tested against other nitrogen fertilizers, including two commonly recognized as slow release nitrogen fertilizers. CIL Sulphur Coated Urea treated grass in foreground.

Efficient

- Release of nitrogen is controlled by moisture. Temperature and bacterial activity are not important factors. Excess moisture however, **does not** markedly speed up the release of the nitrogen.
- Soil ph does not alter pattern of release.

Background photo:
CIL Sulphur Coated Urea prills
actual size.

Effective

- Tested on grass plots under scientifically controlled conditions, CIL Sulphur Coated Urea outperformed all conventional slow release nitrogen fertilizers tested, in both the appearance and growth of grass obtained.
- CIL Sulphur Coated Urea releases nutrients as soon as it is applied and continues to do so evenly over 4 to 5 months. Result is more complete utilization of nitrogen applied, and no build up of nitrates in the soil.

Economical

- High WIN; low cost per unit of nitrogen compared to other WIN sources.
- Available in bulk or in 44 lb plastic bags.

Please send me more information about **CIL Sulphur Coated Urea**.

NameCompany

Address Mail to: A. M. (Gus) Peesker, Marketing Manager
Professional Turf Products
Canadian Industries Limited
P.O. Box 5201 London, Ontario, Canada
N6A 4L6 Telephone: (519) 672-9220

City

StateZip

*A dependable source of supply
of quality products, in commercial
quantities, from Canada's largest
chemical company*



Canadian Industries Limited

IF YOU ARE IN THE SOD BUSINESS SOONER OR LATER YOU WILL OWN A BROUWER



- ★ **DEPENDABLE** ★ **ECONOMICAL** ★
- ★ **AFFORDABLE** ★ **LIGHTWEIGHT** ★
- ★ **RUGGED** ★ **VERSATILE** ★



*The one sod harvester that can
ROLL, SLAB and FOLD.*

*Harvesting most of the
world's turf in 9 countries.*

*Call or write for our NEW
fully illustrated brochure.*



BROUWER
TURF EQUIPMENT LTD.

MANUFACTURER & DISTRIBUTOR

R.R. No. 1, Keswick, Ontario L4P 3C8
Telephone (416) 476-4311

Circle 104 on free information card

Desert saltbush species released

"Corto" Australian saltbush, *Atriplex semibaccata*, R.Br., has been released by the USDA and the Arizona Agricultural Experiment Station, for use as a ground cover for erosion control and beautification of highway rights-of-way, construction sites, and similar disturbed areas in the desert Southwest.

Australian saltbush is semiherbaceous plant that was introduced into California in the 1880's and various ecotypes have become naturalized in southern California, Arizona and New Mexico since.

"Corto" is a semiprostrate perennial plant, eight to 10 inches tall and spreads to a diameter of six feet. Stems become somewhat woody, but the plant is primarily herbaceous. Leaves are numerous and grey-green in color. The flowers are monoecious and inconspicuous. Male florets are located on the end of the stems. Female florets are located in the upper leaf axils. Fruits are fleshy and turn red at maturity. The fruit is subtended by two fruiting bracts that turn red with fruit maturity and exhibit fall colors from October through December.

"Corto" plants provide good cover with an annual precipitation of 10 to 12 inches. Hardiness limits have been established at about 3,500 feet in elevation. Older plants at Tucson, Ariz. are killed back to the crown by temperatures below 25°F. Young plants have withstood 17°F. temperatures at Tucson and recovered in the spring. It is probable that plants would be permanently damaged at temperatures less than 10°F. Plants are shortlived, but stands are reestablished from seed.

"Corto" is best adapted to light and medium textured soils. It is well adapted to saline-alkali sites. Tests conducted on mine tailings, overburden, and mixed tailings-overburden showed good plant vigor with pH readings of 7.8 to 8.2 and total soluble salts of 2,870 ppm, approximately four tons of soluble salts per acre.

No grazing studies have been done specifically with "Corto" Australian saltbush, but grazing studies in California reported Australian saltbush as a good forage plant for horses, cattle and sheep. Results of forage analysis show that the amount of digestible nutrients compares well with that of alfalfa.

"Corto" has approximately 246,000 seeds per pound. Seeding rates of seven pounds per acre pure live seed have resulted in adequate stands on critical areas. Late fall or early spring planting provide the cool season best for seedling establishment. Drilling the seed less than one-fourth inch into a firm, clean seedbed and compacting the soil around the seed results in good germination.

Breeder and Foundation seed will be maintained at the SCS Tucson Plant Materials Center, Tucson, Ariz. Foundation seed is available to growers through the Arizona Crop Improvement Association and Natural Resource Conservation Districts.

Healthy little beauty likes shade!

What a beauty little Glade Kentucky bluegrass has turned out to be! A fine, healthy specimen, Glade has a higher level of resistance to powdery mildew, and performs better than many other Kentucky bluegrasses in up to 60% shade as well as open sun. Glade, a Rutgers selection (nationally tested as P-29), has improved resistance to stripe smut and leaf rust. Midwestern and Northeastern university tests indicate that Glade has better than average resistance to Fusarium blight.

Glade is one of the fastest germinating bluegrasses, quickly forming a thick rhizome and root system.

A dense, low-growing, leafy turf, Glade has an attractive medium to dark green color.

Glade Kentucky bluegrass is your guarantee of physically pure and genetically true seed. You won't be seeding annual bluegrass (*Poa annua*), short-awned foxtail or bentgrass when you plant Glade. Specify this healthy little beauty in your next lawn seed mix. It blends beautifully with fine fescues and other elite bluegrasses, persists in shade when many others weaken. Glade Kentucky bluegrass is available at your local wholesale seed distributor. Insist on Glade in your mix.

Another fine,
quality-controlled
product of
Jacklin Seed
Company.

Glade Glade

KENTUCKY BLUEGRASS

U.S. Plant Patent 3151



NLA finds landscape guarantees widespread

A recent survey by the National Landscape Association revealed that guarantees of plants and labor are offered by a majority of landscape firms. Ninety-seven percent of the firms responding to the survey indicated some type of warranty was provided.

The results also showed that plant material guarantees are more common than labor guarantees. No preference was revealed for full versus limited warranties, although the time period covered varied widely.

The customer was assured of satisfactory plants in 92 percent of the landscape firms' guarantees. The warranty usually stipulated that the customer assume the responsibility for the care and maintenance of the newly-installed plants. Regional differences in the percentage of firms that guaranteed plants appeared:

Northeast	98%
Southern	97%
Great Lakes	88%
Western Plains	88%
Southwestern, Pacific and other	92%

It is interesting to note that the percentage guaranteed decreases in the Great Lakes and Western Plains regions by about ten percent. Moreover, many firms stated a time period of "one growing season" in both

these regions. These differences may be attributable to the severity of winters. Note that the percentage rose again in the Far West regions.

Another significant finding was the lower percentage of firms offering guarantees of labor. Labor coverage is definitely lower than plant coverage — only 62 percent of labor is guaranteed nationwide. Companies seem to generally guarantee the labor performance 100 percent, 50 percent, or not at all — very few percentages in between.

Again, there were regional differences:

Northeast	74%
Southern	52%
Great Lakes	72%
Western Plains	48%
Southwestern, Pacific, and other	58%

The percentages in the Southern and Western Plains areas are significantly lower than the Northeast and Great Lakes areas. In both of these areas firms generally guarantee their labor 100 percent or not at all.

The landscape guarantee survey also questioned the type of guarantee/warranty provided, specifying that a full guarantee requires replacement or repair of a product (that is defective or fails) within a reasonable

ECHO

Here's a versatile clean-up tool that works fast where brooms and rakes can't reach. Pack this lightweight portable on your back and pursue the toughest dirt, debris, leaf and snow removal tasks in stadiums, parking lots, construction sites ... anywhere. The Model PB-9 cleans up fast with an airstream that adjusts from a gentle breeze to a 200 MPH blast. Power comes from a 3.2 hp. gasoline engine that runs for 2 hours on 1/4 gal. of fuel. Sprayer, the duster and flame thrower attachments add more versatility on DM-9 model. Write for complete details today.



**power blower makes
tough clean-up
a breeze!**



ECHO

CHAIN SAW DIVISION
KIORITZ CORP. OF AMERICA
350 Wainwright Avenue
Northbrook, Illinois 60062
(312) 498-1390

Circle 140 on free information card

time at no cost: anything else is a limited guarantee. No preference for a full rather than a limited guarantee appeared, however; respondents split almost evenly nationwide: 73 offered full guarantees, while 71 offered limited.

The final question on the NLA survey concerned the time period covered by the guarantee of plants and/or labor. The respondents chose between "one calendar year," "months," and "other." Most landscape firms (53 percent of the survey respondents) base their guarantees on one calendar year:

Northeast	26 (of 36 respondents)
Southern	12 (of 20)
Great Lakes	26 (of 37)
Western Plains	25 (of 39)
Southwestern, Pacific and other	10 (of 16)

These 38 firms, however, differed widely in the number of months specified — from one to nine months after installation. The average number of months nationwide was 4.4. Regionally, the Northeast and the Western Plains were high (5.1 and 5.5 respectively); the Great Lakes and the Southwestern, Pacific and other regions specified an average of 4.5 and 4.3 months

respectively; and the Southern region guaranteed their plants for 3.5 months.

Other time periods specified included "one year from installation," "one growing season," or until a certain date after installation such as August 1 or November 1. (Due to possible consumer misunderstanding, NLA recommends that precise time guarantees be used in lieu of "one growing season.") One firm dealing entirely with industrial landscaping, replaced and replanted until the customer was satisfied.

The NLA survey demonstrated that guarantees/warranties are common among landscape firms, especially for plant coverage. Labor is guaranteed by fewer firms. The respondents split in preference for full or limited guarantees, and most seemed to base their guarantees on a one-year period. The Northeast and Great Lakes regions showed similarities in almost all categories (e.g. high percentage coverage of plants and labor, preference for full guarantees, and one calendar year coverage.) In contrast, the Southern and Western Plains states revealed similarities in low incidence of labor guarantees, preference for limited guarantees, and coverage for specified time periods. The Southwestern Pacific and other regions were middle-of-the-road. □

There is one sure way to keep a consistent moisture level on your tees, fairways and greens.

Install a PURR-Wick water management system using . . .

tu-tuf
CROSS-LAMINATED POLY SHEETING

By building your tees, fairways and greens over Tu-Tuf barrier liners, you will have total control of the moisture content. Water will be contained during dry weather and will soak through and be drained out during heavy storms.

You will save water, fertilizer, labor and cut maintenance costs significantly. Construction costs are about 1/2 that of traditional designs.

Why is Tu-Tuf so important?

Tu-Tuf is cross laminated adding strength, flexibility and durability over standard poly sheeting.

Tu-Tuf . . .

- has up to 10 times the water-vapor transmission rate
- will not crack in folds and creases
- is pin-hole free
- has superior resistance to snags and punctures
- is weather stabilized, will not rot or disintegrate
- is made to specifications while standard poly has length and width limitations.



To correct your dry or wet condition write or call for free brochure and construction guidelines for PURR-Wick water management systems with Tu-Tuf.

Ask us about our superior sand trap liner.

Meet the
"Untearable"
Mr. Tu-Tuf

STO-COTE PRODUCTS, INC.

Richmond, Illinois 60071 • Call Toll Free 800/435-2621 • In Illinois 815/675-2358

Products



Toro has developed a new sprinkler head with a combination of features designed to reduce water usage as well as installation and maintenance costs of automatic underground irrigation systems.

The Rain Pro permits spacing up to 53 feet and features clog-resistant nozzles, corrosion-resistant construction and a removable basket screen that can be serviced easily from the surface. It has four rotating nozzles that deliver water slowly and uniformly to minimize puddling and run-off.

Circle 701 on free information card



Heckendorn Manufacturing has introduced a low cost 8 hp stump remover available with its own trailer for easy transportation or mounting on a Heckendorn mower, pickup truck bumper, garden tractor or other unit.

The stump remover reduces stumps to an easily removed pile of fine chips, leaving a clean depression. The cutter disc has four hardened carbide teeth, easily removed for sharpening or replacement, on a 12-inch diameter by 1/2-inch thick steel plate. The depth of cut on each pass of the cutter disc is regulated by a hand screw adjustment, set by the operator to remove the maximum amount of material possible.

Circle 702 on Free Information Card



A new 20-cubic-foot capacity rear-mounted box scraper which fits standard category II 3-point quick-coupler hitches has been introduced by the Woods Division of the Hess-ton Corp. It weighs 750 pounds and is designed for tractors with maximum 60 hp or 6,000 pounds gross weight.

The BB600 box scraper features hydraulically controlled scarifier shanks for 5-position depth penetration.

Circle 703 on free information card

"Understanding Soil Compaction", a 22-page booklet has been published as a helpful guide by Davis Manufacturing Division of J I Case.

The booklet outlines the reasons soil compaction is needed and discusses soil types, properties and moisture content. It explains compaction methods and machine characteristics to consider for selection of the most effective combination in various job applications. The guide also explains the most widely used soil compaction tests, their functions and purpose.

Circle 704 on free information card



Rain Bird has introduced Model 1300, a new bubbler nozzle, designed for a variety of landscape irrigation applications.

The unit is constructed of molded plastic to minimize field problems and maintain peak operating efficiency and can be easily installed on existing 1/2-inch irrigation systems.

Flow control is regulated by an adjustable screw on the bubbler's head. Operating pressure ranges from 10 to 60 psi with a corresponding performance range from 1.0 to 2.7 gpm.

Circle 705 on free information card



A battery-operated electronic Soil Moisture Meter which measures and displays the amount of moisture in the soil instantly, has been introduced by Agronics Manufacturing. The probe measures conductance in the soil.

Circle 706 on free information card