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How to choose the right iron.



Choosing the right golf club is a serious matter. You need one that's just right for the shot you have to make. You should take into account the distance, wind, lie, and obstacles.

At Kubota, we feel that you should devote the same careful attention to choosing a tractor.

YOU WOULDN'T TEE OFF WITH A BASEBALL BAT.

And you wouldn't want to get the wrong tractor for the jobs you have to do.

Whether you take care of a golf course, an estate, a campus, a park, or do roadside maintenance, you want a tractor that's versatile. Can it handle a mid-mount mower? A gang mower? Can it move dirt? Dig a hole? Kubotas can do all these things. Every Kubota has rear PTO and a 3-point hitch that can accommodate a wide variety of implements. You don't want a tractor so specialized it can do only one job.

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Our tractors range from 12 to 81 horsepower. Small enough for economy, large enough for heavy-duty jobs. It's wasteful to use 100 horses for some mowing. And it's impossible for 10 horses to do heavy moving or hauling.

DIESELS. A KUBOTA SPECIALTY.

At Kubota, we've been making diesel engines for 30 years. In fact, all our engines are diesels.

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With many models to choose from, we have a tractor that's just right for the maintenance job you have to do. So see your Kubota dealer today. He'll help you get hold of the right iron.

WAIT! I want more information on all your mid-size Kubotas. Please send me a free copy of your latest brochure.

Mail to: Advertising Department
Kubota Tractor Corporation, 550 W. Artesia Blvd.
P. O. Box 7020, Compton, CA 90224

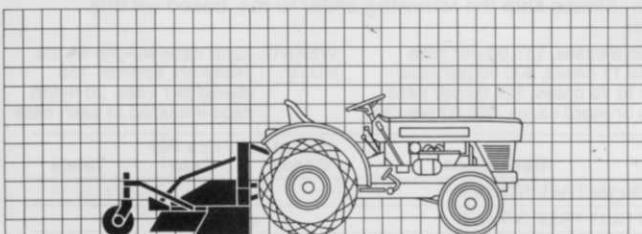
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We're looking for work.



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you can stake your reputation on them.



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- Horse Chestnut
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- Beech



- Apple
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- Pear
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- Plum
- Cherry
- Orange
- Lemon
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- Raspberries
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ROSS ^{Super} Tree & Shrub Stakes

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A high food value combination, plus iron and zinc.

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For bigger, better fruit, pre-measured feeding with iron and zinc booster.

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For Evergreens, Camellias, and Rhododendrons. A special balanced formula plus sulphur, iron and zinc.

Now 3 great once-a-year Ross Formulas for all your trees and shrubs in economical, commercial bulk packs. Each commercial case contains approximately 155 stakes. That's enough to feed more than 35 trees of 3" diameter. 20 solid nylon pounding caps are included in each case... they simplify driving stakes into the toughest soils. For best results, use 3 stakes for every 2" of trunk diameter, placing them at the drip line.

Order your Ross tree stakes from your Ross Daniels distributor. If they are unavailable in your area, order direct.

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PRICES: 1 to 3 cases, \$35.00 per case
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1775	EVERGREEN High Acid STAKES	@	\$	\$
TOTAL ORDER				\$

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Organization _____

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Make check payable to Ross Daniels, Inc.

VEGETATION MANAGEMENT

By Roger Funk, Ph.D., Davey Tree Expert Co., Kent, Ohio

Q: How can I tell two years after transplanting if a locust and a maple tree have been properly root pruned by the grower? If they have not, what should be done to save the trees.

A: I can think of no way other than digging and inspecting the root system, which is rather drastic a measure unless you have reason to suspect a problem.

If the top is beginning to die back, selectively prune the branches and monitor the soil water throughout the growing season for the first three to five years. Water - either too much or too little - is a primary reason why newly transplanted trees fail to establish properly and often die.

A vertical hole drilled within the root area to the depth of the planting pit is helpful in determining drainage. Free water should not remain in the column for longer than a 24-hour period following rain or irrigation.

Purchasing stock from a reputable nursery and following the established standards for planting will result in a healthy, vigorous tree with minimum maintenance. Proper cultural practices such as fertilization, watering and pest control during later years will rarely compensate for improper planting.

Q: I have read articles that mention ready-mixed baits for rodents but have not been able to find a source. Can you help?

A: Rodent baits are available in a number of premixed forms, loose grain, paraffin pellets or blocks, and nonparaffin blocks or pellets. You may write to the Rodent Control Fund, Agric. Experiment Station, W. Lafayette, IN 47906 or you may want to contact a few of the following manufacturers of these products:

Bell Laboratories, Inc., 3699 Kinsman Blvd., Madison, WI 53704, 608-241-0202.

Chempar Chemical Co., 60 E. 42nd St., New York, NY 10017, 212-687-3990.

J.T. Eaton & Co., Inc., 1393 E. Highland Rd., Twinsburg, OH 44087, 216-425-7801.

ICI Americas Inc., Agric. Chem. Div., Wilmington, DE 19897.

Southern Mill Creek Products, Inc., PO Box 1096, 5414 56th St., Tampa, FL 33601.

Velsicol Chemical Corp., 341 E. Ohio St., Chicago, IL 60611

Contact your local pest control distributor for immediate supplies of premixed rodent baits.

Q: What can I use to control speedwell and ground ivy, now that Silvex is no longer available?

A: Dicamba (Banvel), although it is not recommended for application on turf over the root system of trees and shrubs.

Q: In the tree industry, there seems to be two opposing opinions to trunk injections for nutrients, Dutch elm disease, and insecticides. What is the latest information?

A: Any break in the bark that exposes the wood can be considered a wound, and all wounds can serve as an entrance for decay organisms. Among the factors that can affect the resultant discoloration and possible decay following injection are tree species, time of year of injection, material injected, tree condition and the wound type, location, and number.

Dr. Shigo (Northeastern Forest Experiment Station, Durham, NH) has done extensive work with wound response in trees and is largely responsible for educating the industry in regard to the potential hazards of injections. Our policy is to consider injection only if other methods of treatment are not effective or are not feasible. Some internal decay resulting from injection is better than no treatment and a dead or unsightly tree.

Q: Bermudagrass got started in the fringes of our country club and is now growing into the greens. Is there some way we could kill the bermudagrass?

A: You cannot selectively kill the bermudagrass with chemicals. Nonselective herbicides such as Glyphosate (Roundup) can be used to spotkill the infested turf area, followed by reseeding or sodding.

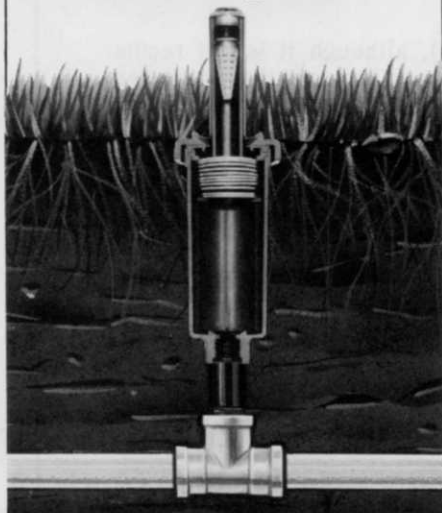
Q: Virginia is in a strange growing zone. It is neither cold like the North nor real warm like the South. Can you help?

A: Much of Virginia is located in the Transition Zone where some species of both cool-season and warm-season grasses grow where neither is well adapted.

In general, cool-season grasses such as Kentucky bluegrass and creeping red fescue are better adapted to northern Piedmont and areas west of the Blue Ridge Mountains. Warm season grasses such as Bermudagrass and zoysia are better adapted to eastern Virginia and southern Piedmont except in shaded areas.

Turf performance of recommended cultivars can be greatly improved by following proper management practices. Contact your Cooperative Extension Service for recommendations for your specific area.

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Our Spring-Loaded Plastic Pop-Up Sprinklers Offer The Most Cost Effective Performance Ratio Available Today!

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For additional information on our 35P Sprinkler and 300 Series Nozzling, return the coupon below.

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WTT

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INTERIOR

New association gets organized

The Interior Plantscape Association, formed last spring, is picking up momentum with membership of more than 150. IPA President Harry Belin says an interior plantscape show is being arranged for September in Dallas, TX, and that an operations manual is being developed with the idea of certification in the next year or two.

IPA attracted 400 interior plantscape specialists to its first meeting in Atlanta when it was only 250 days old. Association director Carol Felix keeps daily tabs on IPA affairs from its Reston, VA office.



The group publishes a newsletter each month.

There are four membership categories; active, allied trade, allied associate, and sustaining. Dues ranges from \$50 to \$150 per year. Persons interested should contact IPA, Suite 14, 1601 Washington Plaza, Reston, VA 22090.

PESTICIDES

Specialist lists guides for handling pesticides

Pesticides and other chemicals, which are used extensively in the Green Industry, can be dangerous if not handled or applied properly. According to extension specialist Glenn H. Hetzel, a variety of pesticide handling guidelines should be followed, including:

- Everyone involved in applying organophosphorus pesticides should exercise extra care and should get a cholinesterase blood test before the work season to establish their baseline. Then, if poisoning symptoms occur, further blood tests will show changes in cholinesterase, which could indicate poisoning from

organophosphorus materials.

- All pesticides should be stored separately from other supplies, materials, tools, or normal work areas. The storage area should be cool, dry, and locked whenever unattended. If possible, the storage area should be a separate building of fireproof construction and should be vented to the outside. Further, signs should be posted to indicate that dangerous materials are stored there.

- Pesticide training should include the symptoms of pesticide poisoning. Proper protective equipment and clothing should be provided and required for anyone handling pesticides. Those mixing and applying pesticides need more protection than those who move the material into or out of storage. Always follow the instructions on the label and note the toxicity level when making decisions on what precautions are needed for a specific pesticide.

- When mixing pesticides, the use of splashproof goggles, gloves, and apron are mandatory. When mixing organophosphates and other highly toxic pesticides, a full face shield, clothing to cover arms, and the proper respirator are necessary. Since pesticides are absorbed through the skin, as well as inhaled, every precaution should be taken.

- Special care should be exercised when applying pesticides. Herbicides are probably less dangerous to the applicator because large droplet size and lower pressures are normally used. However, insecticides are usually more likely to be applied with higher pressures and smaller droplet sizes. This leads to a greater likelihood of spray material blowing or drifting. Consequently, the operator must check wind conditions, as well as the proximity of other humans and animals. Highly toxic pesticides should not be used on windy days and usually not immediately before a rain because drift and runoff could cause disastrous effects. If fine mists are being created, full protective clothing and equipment should be used. Boots and leg protection are necessary for all ground applications.

- No pesticide should be applied until the application equipment has been calibrated. Any change in operating pressure, nozzle size, forward speed, height of boom, concentration of the pesticide, or mix ration will require recalibration of the equipment. Excessive amounts of pesticides could cause harm to

Continues on page 68



ARBOTECT[®] 20-S

The strongest Dutch elm disease protection you can give a tree.

ARBOTECT 20-S fungicide helps make it possible to save many elm trees that otherwise would be lost.

Injected into the trunk of the tree, ARBOTECT builds a barrier against Dutch elm disease inside the tree itself. It helps prevent the disease in healthy elms, and can often save infected trees if they are treated early enough.

Used along with sanitation, insect control, and root graft elimination, ARBOTECT can significantly improve the effectiveness of a Dutch elm disease control program.

ARBOTECT differs from other elm fungicides in several important ways:

- It is registered at rates high enough to be effective.
- It is concentrated, requiring much less water for injection, so trees can be treated much faster.
- Thiabendazole, the unique active ingredient in ARBOTECT, is highly effective against

Ceratocystis ulmi, the fungus that causes Dutch elm disease.

- Even though it is more effective and convenient, ARBOTECT costs about the same to use as other elm fungicides.

This year, put ARBOTECT to work in your disease control program. It's the strongest protection you can give an elm against Dutch elm disease.



Arbotect

Strong protection for elms.



Agricultural Products
Merck & Co., Inc. P.O. Box 2000
Rahway, New Jersey 07065
ARBOTECT (thiabendazole) is
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animals, humans, or plants. Careful selection and use of pesticides must be the standard operating procedure.

- All people working with pesticides should develop the following habits: 1.) Never smoke or handle any food before washing hands. 2.) Do not place food near pesticides or in areas where pesticides are stored or mixed. 3.) Follow the 3-30 rule when mixing pesticides. That is, rinse the pesticide container three times and allow it to drain 30 seconds between rinses. 4.) Change clothes daily and do not wear any clothes that have been exposed to pesticides until they have been laundered. Contaminated clothing should be handled and washed separately from other clothing.

- Equipment used for mixing or applying pesticides should be thoroughly washed and decontaminated after use or before repairs are made. This is especially true when applying toxic substances. Mechanics or service people should be warned about the need for practicing

good hygiene when making repairs or adjustments to chemical applicators.

GOLF

Carol McCue receives Herb Graffis Award

Carol McCue, associate executive director of the Chicago District Golf Association, shared the spotlight with the gentleman for whom the honor was named in November when she received the 1979 Herb Graffis Award.

The appearance of the National Golf Foundation's co-founder and one of the world's greatest golf writers and humorists thrilled Ms. McCue as well as 275 others who attended the awards banquet.

Ms. McCue, in her own words, has done for the CDGA "just about everything" in the office, starting tournaments, writing releases and correspondence, and working with Chicago District Golf Charities and people who design courses."

Graffis had recently lost his wife Dorothy, when she died October 6 in Fort Meyers Beach, FL, at the age of 86. They had been married 62 years.

MARKETING

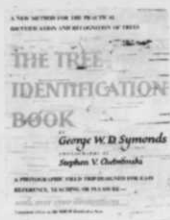
NMC advertising will increase sales

According to results of final consumer research tests conducted by the Nursery Marketing Council, the nursery industry can expect NMC radio advertising to generate at least \$195 million in new purchases of living plants, related products, and services over a three-month advertising period. This is based on a 5 percent increase over current sales.

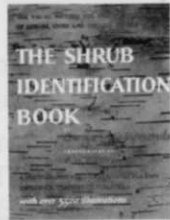
This news comes following completion of the intensive two-year study by NMC to determine how much advertising will be required to break through all other messages to consumers, capture their attention, and most importantly, move them to

Continues on page 71

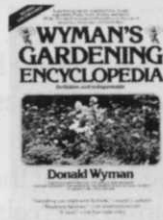
Technical & Instructional Books



Tree Identification
by George W. D. Symonds
A pictorial key to trees with more than 1,500 illustrations. With this book you can identify trees by looking at leaves, buds, branching, fruit and bark.
Paperback—\$8.00



Shrub Identification
by George W. D. Symonds
Same as The Tree Identification Book on shrubs. Contains more than 3,500 illustrations from which to make identification.
Hardback—\$18.00
Paperback—\$8.00



Gardening Encyclopedia
by Donald Wyman
This revised, updated edition includes information on gardening practices, plants, methods of cultivation, fertilizers, and pesticides. 1,200 plus pages with 10,000 articles, 200 drawings, 170 photos.
\$25.00



Home Landscape
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Provides designs examples, and current innovations and refinements to older traditional designs. Covers all aspects of residential landscape design.
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More than 550 photos with plant descriptions and complete notes on their cultivation in both hemispheres.
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_____	_____	_____	_____	_____

Add \$1.25 per book for handling and shipping _____
Total Enclosed _____

Groundsmaster 72.[®]

We engineered this Professional to mow up to 3.7 acres an hour without losing its cool.



Power to spare from a water cooled, 4 cylinder engine.

Clean, uncluttered operator station for maximum visibility.

Hydrostatic drive for smooth, one pedal control of forward/reverse.

An optional rear discharge cutting unit which directs clippings down between the wheels is now available.

Donaldson air cleaner for longer engine life.

Deck offset 18" for mowing under limbs, trimming near fences, trees.

If you're responsible for large areas of turf, you have grounds to buy our Groundsmaster 72.[®]

In fact, Toro engineered this rugged 72" rotary specifically for your needs.

We built-in plenty of power for all types of cutting conditions.

We made its engine water cooled to give you longer service life.

We designed it to trim close to fences, walls, buildings and trees.

And we added versatility. With optional accessories including a 48" snowthrower, V-plow, rotary broom, roll over protection

system (ROPS), and cab with ROPS.

Want a demonstration of the Groundsmaster 72[®]? Or our Groundsmaster 52[®] that mows like a garden tractor and trims close like a walk mower? Call your Toro distributor. Or, mail the coupon.

TORO[®]

The Professionals

Tell me more, Toro.

I'm interested in a free demonstration of the Groundsmaster 72[®]. Please have my distributor call me.

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Company _____

Address _____

City _____ County _____

State _____ Zip _____

Phone _____
area code number

Mail coupon to: The Toro Company
Commercial Marketing Dept. WTT-020
8111 Lyndale Ave. S., Minneapolis, MN 55420

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How Roundup® helped Jim Siegfried renovate this fairway in days, without closing it for one minute.



Take a good look at this good-looking fairway.

Last fall, Jim Siegfried found a way to clean it up, without tearing it up—at the height of his club's busy season. With Roundup® herbicide by Monsanto.

Jim is the Greens Superintendent at Losantiville Country Club, Cincinnati, where bermudagrass had become a serious problem on the 18th fairway. To control it, Jim applied Roundup once—while the weeds were still actively growing—right at the start of the Labor Day weekend.

"That's really 'prime time' here," Jim told us. "But after we applied Roundup, we kept the fairway in play the whole weekend, and after. The members played right over it, with no problem."

Since Roundup has no residual soil activity, and won't wash or leach out of treated areas to injure desirable plants, Jim simply took normal precautions against spray drift—and didn't worry about damaging desirable vegetation along the fairway.

Even better, he was able to re-seed right into the dying bermudagrass only 7 days after applying Roundup—without loss of playing time or inconvenience to the membership.

Reinfestation won't be a big problem for Jim, either. He knows that Roundup destroyed the rhizomes of the treated weeds, helping prevent their regrowth.

Jim thinks he'll use Roundup again this year—and apparently some club members hope so, too. "As soon as they saw how good this fairway looks, some of the members started asking when I'm going to do the same for #10, where we have some more bermuda. I'll probably tackle that with Roundup this fall."

If controlling many tough emerged weeds and grasses is a problem for you, see your local Monsanto representative or chemical dealer soon for your supply of Roundup.

Roundup. It worked for Jim Siegfried. It can work for you.

Circle 129 on free information card



There's never been a herbicide like this before.

ALWAYS READ AND FOLLOW THE LABEL DIRECTIONS FOR ROUNDUP.
Roundup® is a registered trademark of the Monsanto Company. © Monsanto Company, 1979

For more information, contact Monsanto Agricultural Products Company,
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