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# RUGBY KENTUCKY BLUEGRASS IS DESIGNED TO WORK IN THE REAL WORLD.

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As a turf professional, you know all the tricks to making grass look terrific. You lavish water and fertilizer on it, overseed, apply herbicides, and take great care in mowing.

But times are changing. Increasingly you're finding yourself pinched by escalating costs for materials and labor. And there's a growing movement among environmentalists to lessen dependence on fertilizers.

Rugby Kentucky Bluegrass answers these problems.

## YEARS OF TESTING.

Before Rugby was ready to be introduced to you, years of extensive testing were performed under a broad range of climatic and soil conditions. Test sites were located not only in the United States, but Canada as well.

The results? Our testing has shown Rugby to be unique. It's a truly different variety from anything else on the market, with superior performance.

## A TRUE LOW-MAINTENANCE TURF.

The most singular advantage of Rugby is its ability to provide high-quality dark green turf when

maintained at *low* nitrogen fertility and restricted moisture levels.

Most improved Kentucky bluegrass varieties are *not* low-fertility types. You may be told they performed well in turf trials. Unfortunately, you're *not* told that those trials are often conducted using *optimum* nitrogen levels. So it's no wonder you have to fertilize the heck out of these varieties to get good results.

Not so with Rugby. *You can actually get better results with Rugby than with other Kentucky bluegrass varieties while using less nitrogen fertilizer.*

And you'll also save on

the *labor* it would take to apply that extra fertilizer and to do the extra mowing.

## A HIGH-QUALITY TURF.

But no matter how much we tell you about the low-maintenance aspects of Rugby, ultimately you look for—and demand—*superior turf*.

Rugby has a rapid spring green-up rate and excellent fall color. And it also displays *sustained growth during the mid-summer heat stress period*, even under low nitrogen fertility and restricted moisture.

Moreover, Rugby possesses a high level of resistance to most of the common and current turfgrass diseases.

## THE ENVIRONMENTALIST'S GRASS.

Using less water and fertilizer means potential dollar savings for you, of course. But you can also take satisfaction in the fact you'll be using *fewer natural resources*.

By making available a Kentucky bluegrass that fits the world of the '80's, we believe we're fulfilling an important need.

For more information on Rugby, write Rugby Kentucky Bluegrass, P.O. Box 923, Minneapolis, MN 55440.

**Rugby**  
KENTUCKY BLUEGRASS  
*For low-maintenance turf.*



must decide what pictures you want so you can take them at intervals to show the effects of the changing seasons. This requires long range planning, taking and collecting the necessary slides. If you are trying various fungicides for disease control, trying a new fertilizer program, or anything else that must show its effect over a period of time, it is advantageous to have a camera that has a "data back" which will record the date right on your slide as you take the picture. They are obtained at your camera dealers as an accessory for about \$100.00.

If you do not wish to purchase this item or your present camera will not accommodate this feature, it is well to have a piece of paper with the date written on it in large letters in the foreground of the area that you are photographing. Be sure that you can read the date while looking through your camera's viewfinder. Pictures showing the date that they were taken can be very useful when showing storm damage and the "after" picture showing the repairs made. The same is true for recording vandalism for substantiating insurance claims.

Are you going to use graphs and charts in your presentation? These are available from universities and manufacturers representatives—but not as slides for projection. It is very easy to copy these charts and graphs and make your own slides. You can tape the report, usually  $8\frac{1}{2} \times 11$  inches, to a wall outdoors (because of the outdoor color film) with light from an overcast sky and with your lens in the macro mode (see the Nov. issue) you can come in to about 14" and completely fill your frame with your graph or chart. It is best if you come in closer and fill the frame with only the bar graph, chart, curve or table of figures rather than photograph the entire page. In this way the important data is shown as large as possible on the screen for good clear vis-

ibility. The type will appear too small to read if you copy the entire page. This also puts too much information on the screen at one time. So, keep it simple. Your points will be easier to put across.

If you do not have a macro lens, go to your photographic dealer and buy a +2 close-up lens attachment which screws into the front of your normal 50 mm lens which came with your camera. When you set your focus setting of your camera at 15 feet, you will fill the frame almost completely with your  $8\frac{1}{2} \times 11$  chart. The distance from the rim of your lens to your copy material will be about  $17\frac{1}{2}$  inches. If you want to come in closer, set your distance scale to  $3\frac{1}{2}$  feet and with a lens to subject distance of  $13\frac{1}{2}$  inches, you will cover a field of about  $6 \times 9$  inches.

Although it is possible to hand hold a camera while taking close-ups, the picture will never be as sharp as when you use a tripod. If you copy printed matter it will not be clear and distinct when your slide is projected. If the legs of your tripod get in the way, try tilting the whole tripod forward as shown so that two legs are vertical. But be sure to anchor the third leg on a weight so that the tripod doesn't fall forward. Be sure your camera is perfectly level before you take your picture. I always use a spirit level.

All 35 mm single lens reflex cameras have a built-in exposure system—either automatic or match needle type. However, when photographing a piece of white paper you must over-ride your camera's exposure system and open up your lens about a stop or stop and a half. This is not a misprint! A subject which is predominately white requires **more** exposure, not less. If you expose per your camera's meter without this extra exposure, your white page will appear a dark gray when you project your slide. If you are copying a chart or page in a color other than white, your camera will meter the correct exposure.

A good slide presentation always includes title slides. You can easily make them by using transfer letters which are sold in sheets at art supply stores. They should be 24 point with "bold" lettering and numbers. The letters are printed on a clear

sheet of acetate which you transfer by simply rubbing them from the acetate sheet onto your paper. Your titles will be especially attractive if you put them on light pastel colored construction paper. This paper is also available at art supply stores.

Draw a light straight line on your construction paper to help you keep your lettering straight. Position the transfer sheet so that your first letter is where you wish to start printing. Make sure that this letter and all other letters on that row of the transfer sheet are on your drawn line. You can carefully erase it when you are finished and before you photograph your title. Using a pencil or special burnishing tool which art supply dealers sell, simply rub each letter onto the construction paper making sure you have completely rubbed off all of the letter.

The best, most effective titles have a minimum of words. Come in as close to your paper as you can so that the lettering will appear large when you project them. Photograph your titles the same way as with the procedure for charts, etc. described above.

There are other pictures which you may want to include in your slide presentation. You may wish to show an inventory of your equipment showing its condition. You can show pictures of equipment which you would like to have. Manufacturers representatives can usually supply these for you.

Remember that manufacturers, turf dealers and other supply sources can often provide you with slides to fill in any gaps in your presentation. As for the actual slide show, you will need a good slide projector and screen. If none is available, these can be rented by the day. Make sure that the room can be darkened, especially if the meeting is on a Saturday afternoon. A slide show is not enough. You will also want to pass out written copies of your budget, as the Greens Committee will want to have something to carry out with them.

No matter how important you feel that the message in your presentation may be, people are going to judge it on the basis of what they see on the screen. **WTT**

---

James E. Trigg is president of The Academy of Science and Art of Pittsburgh in Pennsylvania.

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Both sport a sleeker, more sensible body that gives you two headlights, comfortable seating for two, and "clustered" controls conveniently located at the driver's side.

The new Turf-Trucksters have also been treated to such improvements as an optional "live" hydraulics package that speeds up work and prolongs clutch life, and a separate PTO system that has been simplified to reduce wear.

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# COFFEETREE WORKS WELL AS CITY TREE

By DOUGLAS J. CHAPMAN

Kentucky Coffeetree (*Gymnocladus dioica*) is an exciting tree that offers potential in parks, as a city street tree or in the individual landscape. It is tolerant of difficult soil conditions, is a good competitor, will thrive when grown in grassy areas and has few or no insect problems.

The habit is somewhat oval-crowned with vertical ascending branches, reaching an ultimate height of 60 to 75 feet with a 35- to 45-foot spread. It is a rather coarse-textured tree with the bark being rough with vertical scaling ridges. It is interesting in that it adds to the coarse texture with a grey to dark

brown color.

The 36-inch long, 24-inch wide bipinnately compound leaf is extremely coarse in texture. In the spring as it comes out, it is a very pale green, changing to dark green mid-spring to a blue-green in mid-summer. Although some have suggested that fall color is ineffective, in central Michigan we have a good clear yellow developing. The fruit are reddish-brown pods, 5 to 10 inches in length, containing a few large blackish-brown round seeds. The seed pods remain and hang on the trees for the entire winter, adding to its coarse, almost grotesque habit.

Kentucky Coffeetree should be transplanted balled and burlapped deep into rich, moist, fertile soil, but as mentioned above, it is adapt-

able to a wide range of conditions from a sandy loam to a rather heavy clay-loam found in many urban soils. It is somewhat drought tolerant, therefore, usually thrives in well-drained versus poorly drained soils. Pruning is most effective and causes the least problems when done during early spring.

There are no catastrophic insect or disease problems to affect this plant. It joins a select list of trees well suited as city street trees—Hackberry, Scarlet Oak, Honey Locust, and Common Horsechestnut.

When one is considering a tree for difficult urban conditions which require little or no maintenance and yet has a rough silhouette similar to elm, Kentucky Coffeetree should come to mind. **WTT**

---

Douglas Chapman is a Horticulturist at Dow Gardens, Midland, Michigan.



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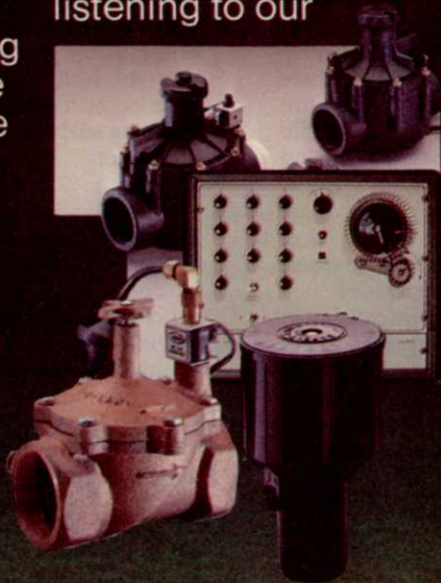
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# VEGETATION MANAGEMENT

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

**Q:** What can you tell me about an environmental disease called red belt? (New York)

**A:** Red belt of needle-leaved conifers occurs most frequently when a sudden temperature drop during the winter months follows an unseasonably warm spell. Needles turn reddish or brown as the tissues become plasmolized and desiccated, then die. A distinct "belt" of injury occurs when warm air sweeps across mountain tops without mixing with the cold air in the valleys below. Rapid warming and drying occur along this belt. At night the border between the two air masses infuses with cooler air, subjecting the trees in the border zone to alternating warm and cool temperatures. Often these belts or bands of damaged trees are so sharply defined that only the tops of trees are affected at the lower edge of the damage zone while only the lower parts of the trees are affected at the top of the zone.

**Q:** I have been told that natural gas is not toxic to trees, yet a gas leak can kill trees. How is this possible?

**A:** An extremely low oxygen content may be caused, in part, by the displacement of the soil air by the leaking gas, but more so by intensive oxygen consumption as a result of methane oxidation. (Methane is the primary component of natural gas.) Methane-consuming bacteria multiply in methane-contaminated soil, using up the oxygen and giving off carbon dioxide. In a normal soil in which there is no natural gas, there are few or no methane-consuming bacteria. Therefore, just after the start of a gas leak, the rate of oxidation of methane is slow. However, after a period of time the methane-utilizing bacteria increase and, in turn, the concentration of oxygen in the soil decreases.

**Q:** How can one tell if an oak is infected with Hypoxylon canker? What is the latest information on control? (Texas)

**A:** Hypoxylon canker can be identified by the dark-colored, crusty fungus tissue on the dead cankered area. Large pieces of bark may slough off, exposing the fungus beneath. Spore masses may vary in color from tan to bluish-gray to black. Willow and water oak appear to be the most susceptible, followed by red oak and occasionally post oak.

Since Hypoxylon canker is primarily a weak pathogen, invading weakened trees, the best form of protection is proper care of your trees.

Protect trees from construction damage, including mechanical wounds, soil compaction, grade changes and fill dirt over the root area. Water trees during drought, fertilize properly and control insect and disease pests to reduce stress. Prune out any branches showing early infection to reduce the amount of spore inoculum.

**Q:** Where can I obtain more information on the losses that can be deducted from federal income taxes?

**A:** The IRS will accept appraisals made by consulting arborists approved by the Council of Trees and Landscape Appraisers, headquartered at 232 Southern Building, Washington, D.C.

Two pamphlets which are furnished free by the IRS are: Publication 547, "Tax Information on Disasters, Casualties, and Thefts," and Publication 584, "Disaster and Loss Workbook."

**Q:** We have a new aphid in our area that causes witches'-broom on honeysuckle. Can this aphid be controlled in the same manner as other aphids, and are there any varieties of honeysuckle which are not affected? (Illinois)

**A:** The aphid *Hyadaphis tataricae* damages the terminal growth creating a weak, spindly "witches'-broom." The stunted terminals have tiny, folded leaves as a result of the aphid feeding. The small green aphid was first noticed in 1979 and has now spread throughout northeastern Illinois.

Tatarian (*Lonicera tatarica* Zabel) and Amur (*Lonicera maachi*) honeysuckle are particularly susceptible, but the aphid has also been reported on *Lonicera bella*, *L. mune-deniensis*, *L. conjugialis*, *L. minutiflora*, *L. morrowi*, *L. amoena*, *L. repectiana*, and it may affect other species. Dwarf honeysuckles apparently are not affected.

Control is the same as for other aphids. Spray overwintering eggs laid low on the plant with dormant oil. Control aphids which appear during the season with malathion, forcibly sprayed to penetrate the curled leaves.

**Send your questions or comments to: Vegetation Management c/o WEEDS TREES & TURF, 757 Third Avenue, New York, NY 10017. Leave at least two months for Roger Funk's response in this column.**



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## EVENTS

The current issue of **WEEDS TREES & TURF** carries meeting dates beginning with the following month. To insure that your event is included, please forward it, 90 days in advance, to: **WEEDS TREES & TURF Events**, 757 Third Ave., New York, NY 10017.

**Mid-Atlantic Nurserymen's Trade Show**, Baltimore Convention Center, Baltimore, MD, **Jan. 18-20**. Contact Mid-Atlantic Nurserymen's Trade Show, Perry Hall, MD 21128, 301/256-6474.

**52nd Annual Michigan Turfgrass Conference**, Longs Convention Center, Lansing, Michigan, **January 19-20, 1982**. Contact: Paul Rieke, Dept. of Crop and Soil Sciences, Michigan State University, E. Lansing, MI, 48824. 517-355-0266.

**Twentieth Nebraska Turfgrass Conference and Trade Show**, Holiday Inn, Omaha, NE, **Jan. 19-21**. Contact Robert C. Shearman, Turfgrass Specialist, 377 Plant Science Complex, University of Nebraska, Lincoln, NE 68583, 402/472-2550.

**Michigan Association of Nurseryman Convention and Trade Show**, Grand Rapids, MI, **Jan. 20-21**. Contact Richard Ahti, P.O. Box 26008, Lansing, MI 48909, 517/394-0236.

**Massachusetts Horticultural Congress**, Dunfey's Hyannis Hotel, Hyannis, MA, **Jan. 20-22**. Contact Deborah Fanning, Massachusetts Horticultural Congress, 715 Boylston Street, Boston, MA 02116, 617/266-6800.

**Associated Landscape Contractors of America Annual Meeting & Trade Exhibit**, Hilton Riviera, Palm Springs, CA, **Jan. 24-29**. Contact ALCA, 1750 Old Meadow Road, McLean, VA 22102, 703/821-8611.

**New York Turf & Landscape Association, Long Island Gardeners Association, Hudson Valley and Long Island Cooperative Extension Service, Annual Turf and Landscape Conference**, Tappan Zee Inn, Nyack, NY, **Jan. 27**. Contact Frank Claps, 136 Laurel Avenue, Larchmont, NY 10538, 914/834-6846.

**Winter National Hardware & Home Center Show**, Las Vegas Convention Center, Las Vegas, NV, **Jan. 30-Feb. 1**. Contact Winter National Hardware and Home Center Show, Cahners

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