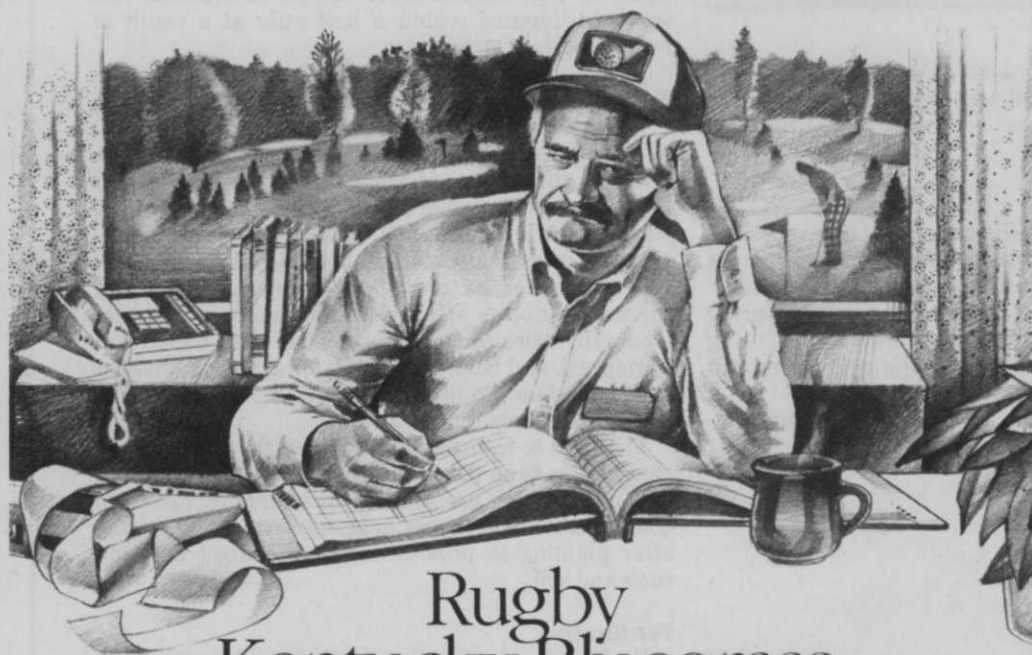


KNOWING QUALITY TURF ISN'T ENOUGH. TODAY'S TURF MANAGER HAS TO MANAGE MONEY, TOO.



Rugby Kentucky Bluegrass grows rich on a lean budget.

Growing rich, green turf in today's economy is akin to being between a rock and a hard place.

Most Kentucky bluegrasses demand their fair share of nitrogen and water. But nitrogen and water, like the time needed to apply them, are money. And money is tight.

Fortunately, Rugby Kentucky Bluegrass is not like most bluegrasses. It's designed to get by on less.

In test plots grown in diverse climates from Manitoba to Oklahoma and California to Virginia, Rugby demonstrated superior

tolerance to environmental stresses. Its most notable attribute, however, is its ability to thrive on *little or no nitrogen* and *moderate moisture*.

In addition to saving the costs of time and materials involved in watering and fertilizing, Rugby's

environmental tolerance means extra vigor in resisting disease.

In overall tests, Rugby scored above 29 other Kentucky bluegrasses in resistance to *Fusarium blight*, and was second highest in resistance to leafspot. It has also shown good ability to avoid the perils of powdery mildew, dollar spot, and stem rust. And if there's anything that can chew your budget to bits, it's the unplanned purchase of fungicide for sick grass.

So the next time you're sitting down with the books, don't get lost in all the worry of red and black ink. Instead, think of the rich, green density of Rugby Kentucky Bluegrass. And how its low-maintenance features can help you out of a tight spot.

For more information, write: Rugby, P.O. Box 923, Minneapolis, Minnesota 55440.

Rugby
KENTUCKY BLUEGRASS
For low-maintenance turf

LANDSCAPE LOG

By Douglas Chapman, horticulturist, Dow Gardens, Midland, Michigan



Zimmerman Pine Moth.

By April, dormancy is about to break, much of the pruning should be completed, and our landscape log should highlight insect control, planting and fertilizing.

Insect Control

Timing of insect control is paramount to results. The idea is to control the insects before they become a problem and more expensive pesticides are needed.

The catastrophic insects we can control during April include many scale, aphids, and mites by using dormant or superior oil sprays to the point of runoff. One should survey target trees.

Scales which overwinter on host plants include:

- eunymus scale
- lecanium scale
- oystershell scale
- crimson erineum scale
- pine tortise scale
- European elm scale
- juniper scale
- cottony maple scale
- golden oak scale
- Fletcher scale

Aphids are sucking insects which attack almost every tree or shrub. They overwinter in the egg stage and are also vulnerable to dormant oil.

Mites are also sucking insects which can cause significant damage to yews, crab apples, arborvitae and other plants. The two-spotted mite and the spider mite are two primary landscape mites. They are difficult to observe, but in significant populations cause bronzing of foliage, ultimate defoliation, disfigurement, and/or death.

Pine insects are another large group of insects which can be controlled in early spring. A significant number of insects affect the terminals and new growth of pines. Since pine's meristematic tissue is located in buds or new growth only, death of the terminal results in severe branch thinning and deformity. This ultimately leads to weakening and death.

Pine insects include European Pine Shoot Moth,

European Pine Sawfly, White Pine Weevil, and Zimmerman Pine Moth.

Timing application of insecticides will increase in the future due to budgetary and environmental constraints. Timed applications of short residual insecticides and/or biological controls will become critical.

Biological indicators will help the landscape manager determine when the insect is in the most vulnerable stage. Bud swell, flowering, and commencement of growth will become important indicators of pesticide timing. A few examples are lilac bloom with both pine needle scale crawler hatch and spruce bud worm larval emergence, and forsythia flower opening with European pine shoot moth larval emergence.

One drawback is the strong influence of microclimate. In one location there can be as much as two weeks difference within a half mile as a result of exposure, sloping, or water.

Transplanting

Transplanting is best accomplished while the plant is still dormant but the frost is out of the soil. This gives us the choice of using bare root, balled and burlapped, or container plants with greatest chance of survival. After dormancy breaks, bare root transplanting is less successful. Balled and burlapped success decreases as growth commences. Container plants are not as affected by dormancy or growth. Generally, bare root stock is cheaper than balled and burlapped, and balled and burlapped stock is cheaper than container. So timing can save money as well as increase transplanting success.

The keys to transplanting early in the spring are to continually keep the root system covered with a thin film of moisture, use some form of organic matter to condition the soil in the hole, and water thoroughly after planting to provide intimate contact between roots and soil.

Fertilization

Early spring fertilization can help reduce the need for insect or disease control by reducing the impact of insects and/or disease. Fertilizer, applied in early spring, has more positive impact than fertilizer applied later in the season.

Fertilizer can be applied to the soil surface at the rate of 2 to 4 pounds of nitrogen per 1,000 square feet of soil surface under the tree. The best defense remains a good offense. A healthy vigorous landscape is less impacted by insects and disease.

WTT

April Job Focus

1. Insect Control
2. Transplanting
3. Fertilization



© 1983 E-Z-GO Division of Textron

GOLF COURSES, PARKS, CEMETERIES, AND CAMPUSES. ALL PROVING GROUNDS FOR THE GT-7 TURF TRUCK.

Whether you're hauling, aerating, seeding, top dressing, or spraying, the GT-7 is fully equipped to handle the job. That's because E-Z-GO has been constantly changing, improving and upgrading the GT-7 until it literally suits any of your grounds maintenance functions.

E-Z-GO, the world's largest manufacturer of golf cars and utility vehicles, is backed by Textron, Inc., a major multi-industry manufacturing company.

The sheer number of service personnel in the field insures that users of E-Z-GO products get the service they need, when

they need it.

Aside from giving you steel's strong durability, and a 1500 pound payload capacity, the heavy-duty GT-7 is an all purpose turf truck with a number of accessories and options.

For the name of your nearest distributor and information on the GT-7 or any other E-Z-GO vehicle, write or call:

E-Z-GO
TEXTRON

P.O. Box 388, Marvin-Criffin Road
Augusta, Georgia 30913-2699.
(404) 798-4311

SERIOUS SOCCER

Northbrook goes bulk for soccer field nutrition

The residents of Northbrook, Illinois take soccer seriously. The Northbrook Park District soccer fields are used all year except for baseball season. Some fields are even used for night games.

When Mike Schiller, director of parks/facilities maintenance, took his job three years ago, the soccer fields presented an unusual challenge. Today, natural turf is beating the soccer players, except for goal areas. "My goal is to grow turf in soccer goal areas someday," says Schiller.

Northbrook backed Schiller up when he advised all soccer fields needed to be improved. With the support of his boss, Tim Miles, Schiller launched a five-year program to show soccer fans what soccer fields can be with proper knowledge and funding.

An intensive program of aeration, fertilization, and overseeding has vastly improved the fields. The Northbrook fields are now used as an example of good athletic field management by local and national groups.

Schiller is the first to admit much of the advice received from local experts. He presented his goals to James Halloran of Arthur Cleson Inc., a supplier in Wheeling, IL, and Mark Grundman of Northrup King. They were to achieve a constant growth of turf to avoid periods of weak turf or excessive

growth and to cut the number of times fertilizer bags were handled down from three. He also needed to correct compacted soils.

Taking their advice and adding it to his own knowledge derived from a degree in park operation management from Harper College

Schiller describes his soccer field program during a seminar held in Northbrook last fall.

Northbrook receives (below) custom-blended fertilizer in 4½-ton trailer.



NORTHBROOK

in Pallatine, IL, and five years as parks superintendent at Libertyville, IL, Schiller began a custom bulk fertilizer program combined with aerification and overseeding four times per year.

The fertilizer is custom blended through Cleson by IMC. It is delivered to Northbrook in a 4½-ton auger trailer. A 4½-ton trailer spreader is loaded from the trailer. All Northbrook has to do is provide a tractor to pull and drive the PTO spreader and a driver. Northbrook no longer needs to handle bags of fertilizer. Schiller says 95 hours of labor are saved each year this way.

The fertilizer is rated 25-5-14.5. The nitrogen is half urea and half Nitroform. The phosphorus is Diammonium Phosphate and the potash is Sulphate of Potash. It is applied at 4 lbs. per 1,000 square feet four times per year. This program has provided constant turf growth and allowed Schiller to schedule mowing much more efficiently.

Four times a year the fields are aerified and dragged with a Huerst Flexible Tine Harrow. Topdressing is done twice each year in heavy traffic areas. In addition, the fields are overseeded with a Jacobsen Aeroblade Overseeder with a mix of Rugby and Parade Kentucky bluegrasses and NK-200 and Delray perennial ryegrasses. This mix is called NK Medalist North.

None of the fields are irrigated. So Schiller uses a penetrant from Precision Labs of Northbrook. He uses AquaGro on the park districts golf course.

Herbicides are applied in spring and fall, with spot treatments when needed. Trimec is the primary herbicide used with Methar 30 when needed. The penetrant is applied with the herbicides and iron for color.

Many of the systems used for the soccer fields have been moved over to the 27-hole golf course under Schiller's supervision. The

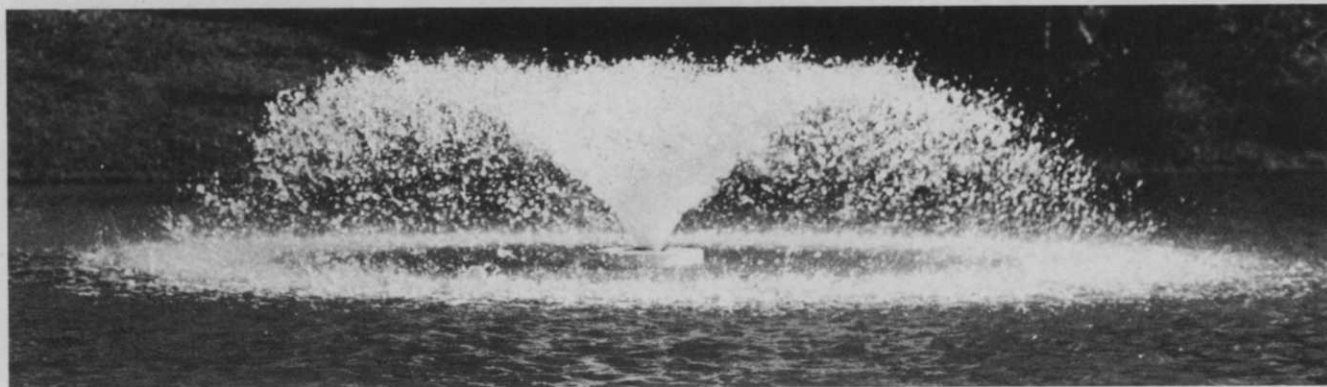
soccer fields are just a step to a larger overall goal to provide recreation to Northbrook citizens. "The people in our district are very recreation-minded," says Schiller.

Soccer players have good fields without artificial turf or without massive reconstruction.

"And the Park board has an excellent relationship with the village government." Illinois has created special tax districts for parks so cooperation is essential.

"Our plans include a clubhouse for the golf course, a miniature golf course, and improving the driving range." Ten soccer fields and 20 baseball fields, added to the golf course, make Schiller's job a big one.

WTT



OTTERBINE

DAY OR NIGHT...SUMMER OR WINTER



OTTERBINE® Aerators can help you keep unsightly algal growth and objectional odors under control naturally. The fact that OTTERBINES also create beauty — is just one of the many benefits of using our Spray Sculpture™ Floating Fountains.

**WE CREATE BEAUTY
WHILE SOLVING PROBLEMS**

BAREBO, INC. P.O. BOX 217 • EMMAUS, PA 18049
(215) 965-6018 USA

Circle No. 102 on Reader Inquiry Card



White grubs used to laugh at insecticides...



now there's OFTANOL. Heh-heh-heh.



When it comes to stubborn white grubs, you get the last laugh.

Apply one shot of [®]OFTANOL 5% Granular Insecticide at the recommended rate at the recommended time and it's goodbye, grubs. All season long.

OFTANOL can be applied with either drop or rotary spreaders and, normally, needs no watering in to work. Its low water solubility resists leaching, so OFTANOL is retained in the upper soil profile where it controls grubs on contact.

OFTANOL can also take out existing populations of sod webworm larvae, *Hyperodes* weevil, billbugs, and chinch bugs. Just follow directions on the label.

With its lasting residual action,

OFTANOL requires fewer applications and is more economical than other insecticides.

OFTANOL provides the most ef-

fective control of mole crickets of any product presently registered, but such use is limited to states which have issued Special Local Need registrations. Check with your state extension office.

Ask your turf chemicals distributor for OFTANOL.



OFTANOL is a Reg. TM of the Parent Company of Farbenfabriken Bayer GmbH, Leverkusen.



Moby Chemical Corporation
Agricultural Chemicals Division
Specialty Products Group
Box 4913, Kansas City, MO 64120

Circle No. 134 on Reader Inquiry Card



Wheel Horse

PeCo

The Wheel Horse C-195 and the PeCo Model 6516 Lawn Vac. Two heavy-duty, long-life products that work together to make your grounds keeping easier.

48" and 60" side discharge mowers attach to the 19 horsepower Wheel Horse C-195 with the simple, no tools required Tach-a-Matic® hitch system (an exclusive Wheel Horse feature). The PeCo Model 6516 Lawn Vac easily mounts on the rear of the C-195 with a category "O" 3 pt. hitch. And, for your convenience, the PeCo Lawn Vac has self-dumping capabilities from the operator's seat position.

Best of all, the powerful combination of the Wheel Horse C-195 and PeCo Model 6516 Lawn Vac picks up grass clippings and leaves on the first pass to save you time.

Isn't it time you made your grounds keeping easier? For more information call Wheel Horse Products at **1-800-348-2424** or PeCo at **1-800-438-5823**.

Wheel Horse Products, Inc.
515 West Ireland Road, P.O. Box 2649
South Bend, IN 46680

PeCo, Inc.
P.O. Box 5415
Asheville, NC 28813

Weed Control Guide

WEEDS TREES & TURF



IAL BANK

nlchy oho
elhonh
oullh

FAIRVIEW oullh ulhonoyic on londo ull
lyu on luncu yuu lnoyu llunoc ouy ote

A-1

The WEED CONTROL GUIDE is updated and published each March. This year Dr. Euel Coats, associate professor of weed science at Mississippi State University, and Dr. Elton Smith, professor of horticulture at Ohio State University, improved the Guide from last year. Considerably more attention has been given to weed control in non-turf areas and to warm-season turf weed control. O.M. Scott & Sons contributed the use of its weed identification drawings. The Weed Control Quiz illustrations are courtesy of the New York State Turfgrass Association.



In this Guide, the focus will be on the primary target weeds and the products or practices that most effectively control them. It is a collection of current herbicide usage information as reported by two weed scientists. A separate section on landscape weed control follows the section on turf weed control. Herbicide labels, as well as your university weed control specialists, are sources of additional specific information.

Weeds

Proper identification of weed species enables the landscape manager to time preemergence and postemergence applications correctly and use the most effective herbicide for that particular weed.

Many of the weed problems a landscape manager faces are solved by knowing the weed history of the area. Records should be kept to show what weed species are indigenous to the area and, consequently, what weed seeds are present in the soil and are likely to appear year after year in problem proportions.

If a weed problem develops which doesn't conform to the history, the weed seed was brought into your area in soil, seed, or another carrier. By using identification illustrations, the new problem weed can be classified for control.

All plants can be classified as either annual, biennial or perennial.

Annuals complete their life cycle in one growing season. They are further subdivided into summer annuals and winter annuals. Summer annuals germinate in the spring or summer and complete their life cycle during the warm growing season. Winter annuals germinate in the fall, complete their life cycle during the winter, and die in the early part of the next growing season. Annual bluegrass, henbit, and common chickweed are examples of winter annuals. Large crabgrass and goosegrass are summer annuals.

Efficiency and economy are two very important factors in landscape weed control today. Understanding the details of each part of a weed management program contributes to the efficiency of the whole program.

Rarely do herbicides alone completely eliminate, or maintain at acceptable levels, the weeds in turf or landscape. Chemical control without adequate fertilization, disease control, irrigation, and soil conditions is ineffective and very short term. The best aid to control is a healthy, vigorous turf and landscape.

Weed control with herbicides in warm season turf is rather complex primarily because the number of species and cultivars. There are at least six turfgrasses used in the Southern United States; bahiagrass, bermudagrass, carpetgrass, centipedegrass, St. Augustine, and zoysia. Two of these, bahiagrass and carpetgrass, are often weed problems in the other Southern turfgrasses.

Dichondra can be added to the list but it is limited to areas of the Southwest that are irrigated. In the Southeast, dichondra is almost exclusively a weed problem.

A few species of cool-season

turfgrasses are used in the South, maintained for the most part as annuals and used in overseeding programs for color during the dormant season. These include annual and perennial ryegrass, rough bluegrass, creeping bentgrass and red fescue. The Southern landscape manager may require weed control programs for both warm season turf and the overseeded cool-season turf.

Turfgrass species are often mixed in cool-season turf. Mixtures of Kentucky bluegrass, perennial ryegrass, and red and chewings fescues are standard. Tall fescues, including dwarf and fine-leaved tall fescues, are the backbone of many utility turfs. The bentgrasses (creeping and colonial) are used primarily for specialty turf such as golf greens. Chewings fescues and an increasing degree of sheep fescue are working their way into cool-season turf programs.

Woody ornamentals and annual plantings are even more complicated than turfgrasses owing to the large number of species and varieties. It is important to consider the effects of soil amendments, particularly organic matter, on herbicide effectiveness in ornamentals.