



*Golf Course Maintenance  
Headed Toward*

# Total Turfgrass Perfection

**G**OLF COURSE maintenance is headed toward "total turfgrass perfection," says an industry researcher.

Alexander M. Radko, research coordinator for the United States Golf Association, credits the steady improvement in golf course maintenance to a number of factors. Among them, he cites: new technology and the dissemination of it through local, state and national conferences; sufficient capital; and an increasing number of "inquisitive, college-trained personnel" entering the field.

As industry's wage spiral continues, projections for course maintenance embody fewer—though better paid and informed — ground crews and greater mechanization, Radko predicts.

Emphasis, he says, will be placed on improvements in machinery, irrigation systems, and the installation on new courses of architectural features requiring less hand maintenance.

## **Greenbrier's Technique**

One well-known course that's far along the way toward the maintenance perfection that Radko sees ahead is The Greenbrier, White Sulphur Springs, W. Va.

Superintendent W. D. Haven discussed The Greenbrier's maintenance planning and budgeting at a recent Virginia turfgrass conference.

At present, three Greenbrier employees are assigned to each of the three 18-hole courses. One man cuts six greens, rakes traps, trims, and does odd jobs. Another spends full time mowing tees, while a third does all the cup setting and tee marker placing on each course.

Other facets of the Greenbrier plan include daily mowing and cup setting, with tee markers being moved in relation to the cups each time they are set. The spraying has been changed from a three or four-man operation to a one-man operation on all three courses.

From mid-May to mid-October, the 59 greens are sprayed every seven days, while all 82 tees and the fairways of one course are sprayed every two weeks. To get ahead of the players, spraying is begun at 4 a.m.—with lighted equipment. Two fungicides are used on the greens and tees.

The fairway mowing plan at The Greenbrier calls for mowing four times a week, Haven continued. Installing lights on the equipment and mowing at night has proved advan-

## World's Ten Most Hated Weeds

What's the world's worst weed?

Everyone has an opinion. LeRoy Holm, horticulturist at the University of Wisconsin, says the most detested weed is purple nut sedge.

He goes further by listing the 10 most hated weeds, compiled after a study of world weed problems when he was with the United Nations Food and Agriculture Organization.

After purple nut sedge, he lists bermudagrass, barnyard grass, jungle rice, goose grass, johnson grass, guinea grass, water hyacinth, cogon grass and lantana. Eight of these are grasses or sedges and five

are perennials. With the exception of guinea grass and cogon grass, these weeds are found on every continent.

"Public enemy weed number one," also called nut grass, nut sedge, coco sedge or coco grass, is common for 2500 miles north and south of the equator and on every continent.

World weed problems do not receive as much attention as more obvious pests, Holm said, such as disease, insects and rats. Yet, he added, weeds are probably taking a greater toll of food that should go to feed hungry people and their livestock.

tageous, since night mowing does not interfere with the players—a primary consideration for any course, Haven maintains. Also, Greenbrier mowing time has been cut in half.

Since the grass is in better condition for mowing after sundown, as it is cooling off, it is less likely to wilt and is under much less strain. Except on particularly hot days, mowing at The Greenbrier begins at 4 p.m. Brushing is done three times a week.

Plans for improved aerification, drainage, fertilization, and top dressing of greens and tees are in the offing at The Greenbrier, according to Haven, who stressed that since fertilization plans are often subject to change, they are projected on a year-to-year basis.

This coming season, for example, the plans call for the use of non-soluble materials which, requiring less frequent application, will consume less labor. Also, Haven reported, the Virginia Polytechnic Institute's heavy-winter-light-summer recommendation is to be implemented nearly 100% at The Greenbrier during the coming season.

Budget control at The Greenbrier is achieved by comparisons with the preceding season's expenditure projection and its actual cost. Factors weighed in determining a budget include additional costs of materials and equipment, and a detailed breakdown in labor costs incurred in the various operations, Haven said. Inasmuch as about 1,000 man-hours have been consumed

during winter months in scraping and brushing equipment for all three courses, Haven reported, Greenbrier officials are considering the purchase of new equipment with a view

to decreasing man-hours and increasing maintenance efficiency.

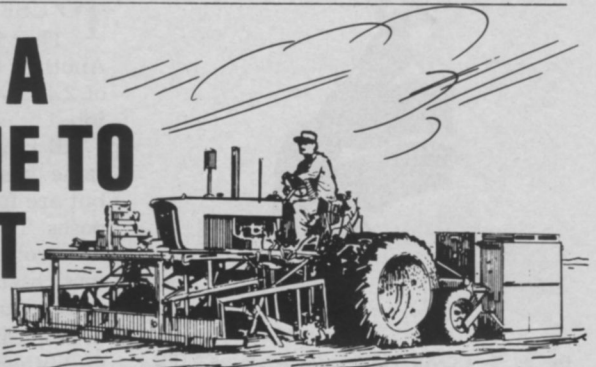
Radko observes that more of today's courses are leaning toward artificial turf. Reasons for this are that the increasing usage of golf carts creates correspondingly more maintenance problems—i.e., harder wear on the turf, plus the necessity for installing more paths.

A Tennessee course is currently pioneering the use of artificial turf on paths, small tees, and temporary greens for winter play, and possibly where an instant putting green is required because of damage to the natural green, Radko reports.

Radko and Haven agree that the ever increasing leisure hours of the American public will continue to act as the major spur to the ever increasing demand for overall perfection of golf courses.

Hence, well-manicured courses are rapidly becoming the rule rather than the exception—"it's getting crowded at the top," Radko notes. And, as Haven aptly states, "... golf courses are like people—no two are exactly alike, but they all respond to good treatment . . . and good planning makes good treatment possible."

# AT LAST A MACHINE TO HARVEST SOD



*the Growers way!*

- WILL ELIMINATE UP TO 10 MEN FROM YOUR LABOR FORCE.
- DEPENDABLY PRODUCES 1500 PLUS YARDS OF NEATLY ROLLED AND PALLETIZED SOD PER HOUR.
- THE "HARVESTURF" NEVER TRAVELS ON THE SOD, ALLOWING HARVESTING UNDER MOST WEATHER CONDITIONS, AND NEVER DAMAGING THE TURF.
- ALL POWER IS FURNISHED BY HYDRAULIC MOTORS WHICH ARE FULLY ADJUSTABLE AT ALL SPEEDS.
- THE "HARVESTURF" IS ABLE TO HARVEST SOD AT WIDTHS UP TO 24 INCHES AND LENGTHS TO 82 INCHES.



**BIG 'J' PRODUCTS, INC.**

A DIVISION OF

**SHAMROCK  
TURF NURSERIES, INC.**

HANNA, INDIANA 46340  
PHONE: 219-797-2215

For More Details Circle (104) on Reply Card