

# Fylking - outstanding as its name!

Internationally tested over 12 years, Fylking has proven to be exceptional — exceptional as a mixer in any lawn seed mixture, exceptional in producing a thick turf. The dense rhizomatous root system knits itself together so weeds cannot penetrate. Low-growing, abundant tillering, fine textured Fylking has greater disease resistance and drought resistance. It greens earlier, is greener in summer, stays green longer into fall. Can be cut low as  $\frac{3}{8}$  inch (even  $\frac{1}{2}$  inch) and thrive with less watering.

Check tests shown below:



**FYLKING KENTUCKY BLUEGRASS**

U.S. Plant Patent No. 2887



1. Comparison of Fylking (right) with another elite bluegrass plant.



2. Cross section shows thick, luxuriant turf, fine leaf texture and brilliant green.



3. 11-day seedling comparison Fylking and another elite Kentucky bluegrass.



4. Leafspot comparison of disease-free Fylking and other elite bluegrass.

Another fine product of Jacklin Seed Company

For More Details Circle (103) on Reply Card

# International

## Our 2400A Lo-Boy:

### Built for mowing— from the grass up.

And just what is a *mowing* tractor?

A good one is squat and compact, clings to slopes without slipping. It's nimble. Brakes, turns on its own axis and steers like a sports car.

It's geared for every speed from creep-mowing next to fences and obstacles up to nearly 20 mph highway transport. It's versatile — works with a rotary mower, ganged reels, or flail in the rear, and at the same time can handle a cutterbar with its side PTO.

And because grass just won't wait, it's built with the power and strength to get big mowing done in a hurry. Without breakdowns. With a minimum of maintenance.

That's a *mowing* tractor.  
That's our 46 hp 2400A Lo-Boy.

Your International dealer has all the exact specs, including 9 ft. turning radius; hydrostatic power steering; 8-4 synchromesh shift-on-the-go transmission with Hi-Lo range and straight-line shifting; independent rear PTO, side shaft optional; big 11-inch Dyna-Life® clutch; wet disc hydraulic brakes — a package no other mowing tractor on the market can match.

Phone your dealer soon and let him prove it on your own turf.

**We keep getting better at  
our business to get more of  
your business.**

**And keep it.**



**INTERNATIONAL HARVESTER**



# ntional

®



# TURF MANAGEMENT

Golf

Course

Superintendent Uses



Turf records are vital tool in maintaining fairways, greens and tees. Dennison's clipboard (above left) is in steady use as a planning tool. (Above) He also spends much time in his office. As president of Allegheny Mountain Superintendents Assoc., he keeps up to date on the latest in the turfgrass industry.

WHEN it comes to jobs in the "Green Industry," few present such a diverse challenge as that of a golf course superintendent. Consider, for example, the experience of M. S. "Denny" Dennison, who moved into this slot last summer at the 4-year-old Pines Country Club in Morgantown, West Virginia, after 13 years as superintendent at another club.

In his first year at Pines, Denny faced a full measure of management problems, involving people, weather, budgets, equipment, supplies, and schedules . . . as well as the constant pressure of familiar turf diseases and the friendly supervision of a greens committee and more than 250 avid golfers.

Denny Dennison, of course, is only one of more than 10,000 superintendents who have the responsibility of maintaining U. S. golf courses in top condition through most or all of the year. Circumstances vary. It's unlikely that any two superintendents manage their

jobs the same way. Still a close look at Denny and his work at Pines show why a golf course superintendent must know not only a great deal about turf, but also a good deal about the role of a diplomat, detective, labor expert, financial planner, and maintenance or construction coordinator.

There are some unusual aspects to the Pines course. It has bluegrass fairways (and Pennncross creeping bentgrass tees and greens). It is built on top of an abandoned coal mine, and last summer, a 40-foot shaft suddenly and unexpectedly opened up on the 18th fairway. The club provides living quarters on the course for the superintendent. This is convenient, but it also adds some to the 24-hour-a-day aspect of a superintendent's job — nocturnal pilfering of flags, for instance, can be better controlled when all you have to do is step out of your door to see the action underway.

Correction of mine-shaft holes on

the fairway obviously involves more engineering — locust poles, a concrete cap, and seeding of new top soil took care of the 18th hole fairway problem in 1972. But bluegrass on a 6,592 yard course means some special turf maintenance headaches, including intruding annual bluegrass, incipient leafspot and overabundant seed heads. All in all, a man like Denny Dennison has found it useful to do a lot of looking and listening, as he has carried on with a disease control and turf protectant program already underway when he arrived at Pines Country Club.

West Virginia weather is variable. While year round the temperature on the Pines course in Morgantown is 2 to 4 degrees cooler than in Clarksburg, where Denny spent a number of years, the rain and humidity patterns are similar. These help to set the stage and the need for disease prevention in a typical season.

Leafspot, which thrives in cool,



## New Ideas To Upgrade Maintenance At Pine Country Club



Course maintenance includes regular equipment checks. Here, Dennison inspects sprayer for proper operation. His staff includes a full-time mechanic, but he makes a personal point of keeping equipment in top condition. He also welcomes company representatives to the course to review technical

aspects of products. (Above right) Craig Monroe of Du Pont (l) inspects a green with Dennison. Good management is the interaction of many individual programs all working in harmony.

damp conditions, has been the main turf problem on the Pines Course. To overcome it, Denny has continued periodic treatments with Tersan LSR. In 1972, his crew made five fairway applications at intervals of about three weeks. These repetitive treatments kept disease under control — and at a relatively modest cost in materials.

Dollarspot was more than a threat in 1972. It hit twice on several fairways and it came practically overnight! But Denny was ready and sprayed Tersan 1991 quickly, thereby containing the problem. The fairways came back.

Disease problems on greens and tees are being handled at Pines by regular applications of Tersan LSR in the spring, Tersan 1991 in the summer, and Tersan SP in the fall to stop snow mold. Denny Dennison believes in starting his spray program right after the first mowing. With bluegrass fairways, he expects

leafspot problems. Yet, by starting his program early and staying with it, he avoids disaster.

Management of the Pines' turf disease problems is paralleled by Denny's management of the rest of his job. Altogether, he operates on a maintenance budget which is about average for course maintenance at U.S. golf clubs, but the figure is up substantially over a decade ago as golfers have set higher standards for their courses.

Denny figures that 50 percent or more of his budget goes for labor, perhaps 15 to 20 percent for turf chemicals including fertilizer, fungicides, herbicides and insecticides; 10 percent for top soil, top dressing and seed, and the balance for miscellaneous items and supplies such as pilfered flags and poles.

Denny and his 9-man summer crew (he has 2 men year round) work with an impressive array of tractors, mowers, trucks and miscellaneous equipment, which represents

an investment of something well over \$50,000.

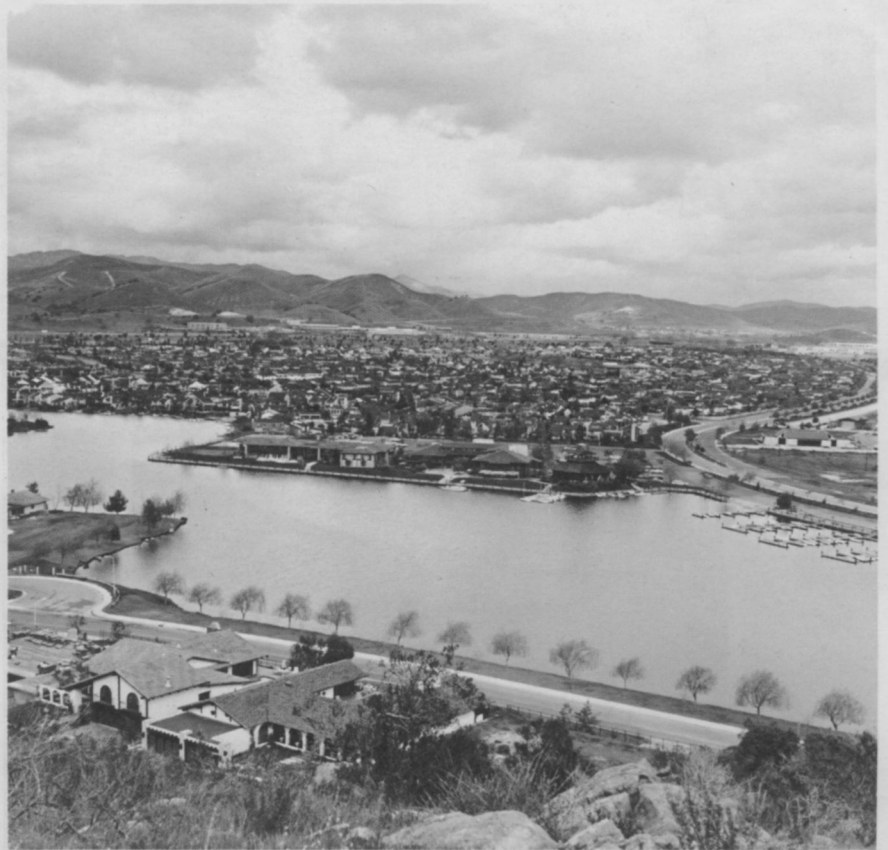
One of their most productive tools is their 100-gallon Hudson sprayer mounted on a turf truckster. With a 16-foot fixed boom, the sprayer applies 50 gallons per acre, and in just about three hours all the greens and tees on the course can be sprayed. It takes a full eight-hour day to cover the 40 acres of fairways with a turf protectant spray such as Tersan LSR or Tersan 1991.

People are another potential problem for the golf course superintendent. Denny has built his 9-man crew mostly through local recruiting. On an hourly basis his labor costs are nearly double what they were 10 years ago at another club. He tries to compensate for this increase by greater use of modern equipment, improved training of his men, and consideration for other possible solutions in the future — in-

*(continued on page 64)*



Assistant lake manager, Don Danyko, (l, top) inspects application rig. He and lake manager, Bert Dell, selected Casoron for treatment.



The placid waters of this man-made lake provides a continuing source of recreation for the residents of Westlake Village. Prior to treatment, land owners fought sago pondweed, hollyleaf naiad and other aquatic weeds in order to use the water for recreation. Now water is clear and useful by the community.

## Chemical First Aid For California Community

**WESTLAKE VILLAGE** is a private community set in the Santa Monica mountains, just off the Los Angeles, Ventura freeway and about a 40 minute drive from Los Angeles. It is a high-income, multimillion dollar development of spacious homes, townhouses, and apartments, with lavish malls and plazas, shops and restaurants, clubhouse, and marina.

Westlake community life is wholly centered around a 150 acre man-made lake, with over seven miles of waterways and shoreline that include sailing, swimming, fishing and other recreational activities.

Early in the development of Westlake, lake management recognized the urgent need to preserve the beauty and usefulness of the lake. It was necessary to establish a lake maintenance program that would include the control of aquatic weed growth and algae along its shores.

A nuisance and a blight, these vegetation pests combine to bring disease and imbalance to the lake ecosystem, to say nothing of immediate and vocal response from lake shore property owners with a substantial investment in the lake community.

Even with a well-planned maintenance program, problem weeds such as sago pondweed, leafy pondweed and hollyleaf naiad were ruining the appearance of the lakefront development. In addition, the weed growth interfered with small boat traffic.

For help with this problem, lake management turned to the University of California. University personnel had been working for several years on the problem of aquatic weed growth in non-flowing water such as lakes, ponds and recreational waters, and had documented tests with several chemical compounds recommended for this use.


Initially several different types of aquatic herbicides were tested with little or no success; however, one of the most effective compounds that had been used in these series of tests was Casoron dichlobenil, a pre-emergent herbicide.

Dr. Lowell Jordan directs the university's herbicide involvement at the Westlake project. He and other university personnel cooperated in setting up a program for aquatic weed control using Casoron in treatments starting in January 1972.

They treated the area at a rate of 100 lbs. of Casoron G-10 granules per surface acre. The material was applied to alternate strips of shoreline, leaving untreated strips to provide feed for fish and other lake lifeform. This not only helped maintain the lake's ecosystem, but also provided check strips to determine degree of control by the compound.

*(continued on page 80)*





Pennfine ...

Other  
fine-leaved  
ryegrass

These two fine-leaved perennial ryegrasses were cut with the same mower. The one on the right shows the fibrous "paint brush" top which is characteristic of ryegrasses. Pennfine, on the left, took a smooth, even cut because it was bred for softer, easier to cut fibers.

# Pennfine: the clean-cut perennial ryegrass.

All the new fine-leaved perennial ryegrasses are beautiful. Until the mower comes along. That's the moment of truth for ryegrass. And Pennfine is the fine-leaved perennial ryegrass bred specifically for mowability. You can see the clean-cut look of Pennfine in the photo above. You'll see it in your turf, too.

## **Pennfine vs. other fine-leaved ryegrasses**

Developed and released by Pennsylvania State University, Pennfine is the best of the fine-leaved perennial ryegrasses. That's

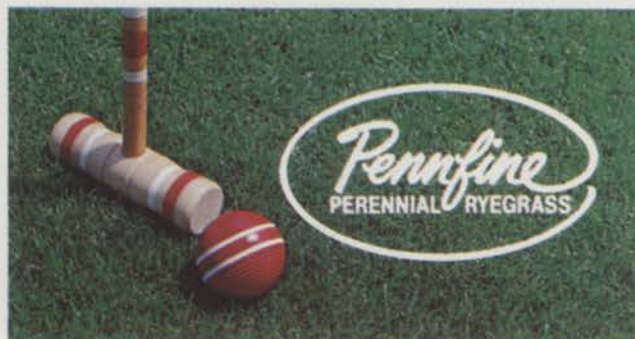
the finding of the trials at University Park, Pennsylvania. Among nine cultivars, Pennfine ranked first in texture, first in density, first in decumbency (low growth), first in tolerance to snowmold and leaf spot. And, of course, first in mowability.

## **Pennfine mows 'em down**

The remarkable mowability of Pennfine — the result of breeding specifically for soft fibers — is demonstrated in the above photograph. It was also proven by the University Park trials. Over a five-year period, Pennfine

averaged 8.3 (of a possible 10) in mowability. The next best score was 7.3, and the other cultivars rated considerably lower.

With the finest blade of all the fine-leaved ryegrasses tested, Pennfine is beautiful to begin with. And, because of superior mowability, it stays beautiful. It's also highly compatible with Kentucky Bluegrass, both in terms of appearance and management requirements. If you'd like more information on this clean-cut perennial ryegrass, just send in the coupon.



TO: **Pennfine Perennial Ryegrass**  
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Please send me technical information on Pennfine Perennial Ryegrass.  Names of Distributors.

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# One Man Two Courses Many Challenges

Cool season bluegrass and warm season bermuda require year-round skill from veteran superintendent Bob Shields

WHEN PEOPLE ask me what I do for a living, I just tell 'em I go to the country club every day," says L. R. (Bob) Shields, golf course superintendent of the Woodmont County Club, Rockville, Maryland.

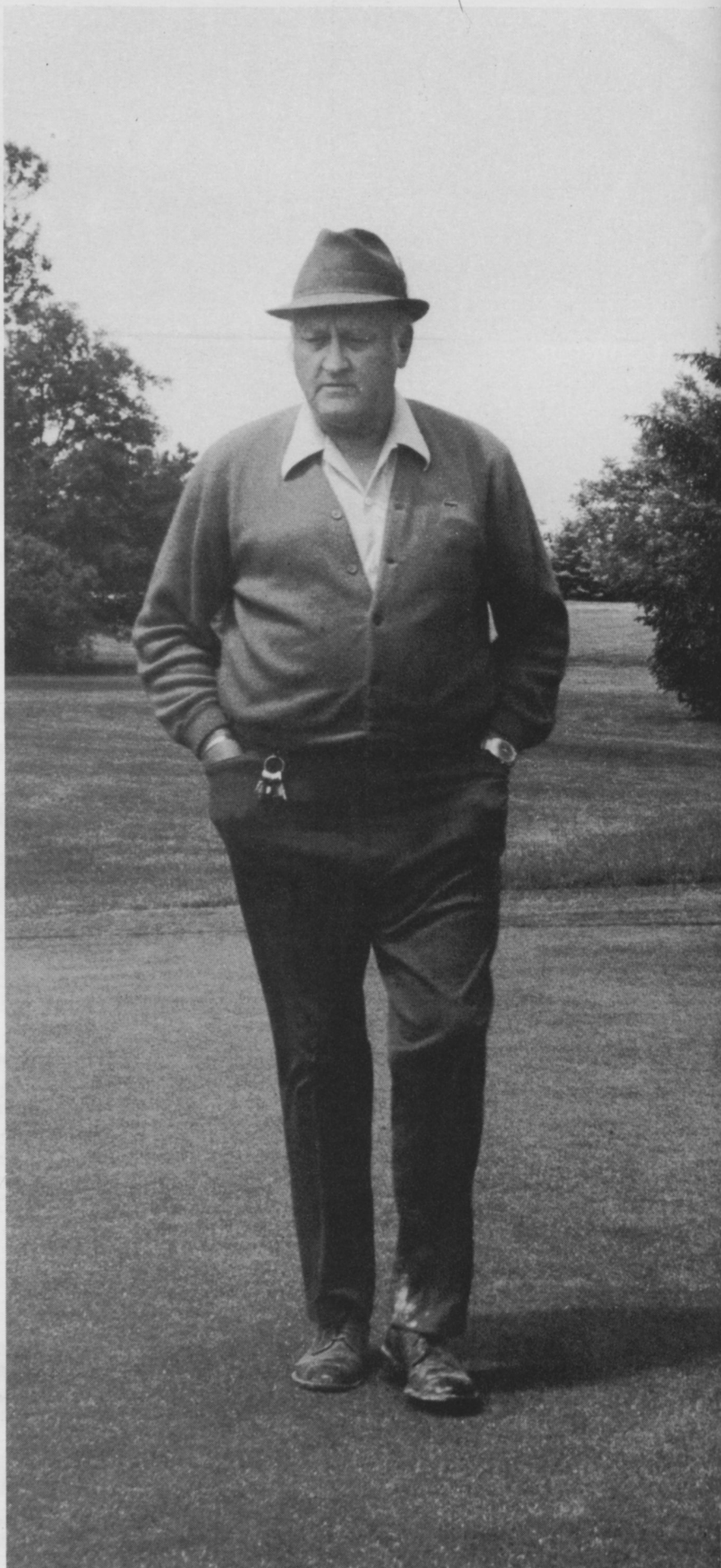
But the 25-year veteran of golf course management—and 1965 president of the Golf Course Superintendents Association of America — doesn't go to the club to play. "Golf isn't a game to me," he adds. "In fact, I gave it up some years ago. Now golf is my work, and fishing and flying are my recreation."

Managing two 18-hole courses and a crew of 18 (plus two part-timers) is work enough for anybody. But the outdoor living, the variety of jobs involved, and continuing challenges have made it the ideal job for Shields. Apparently, the feeling runs in the family; his son, Glenn, plans to follow Shields into golf course management.

Woodmont's location—right on the borderline of north and south—adds to the challenge. The climate is less than ideal for either warm season or cool season grasses; although both can be grown, neither thrives all year long.

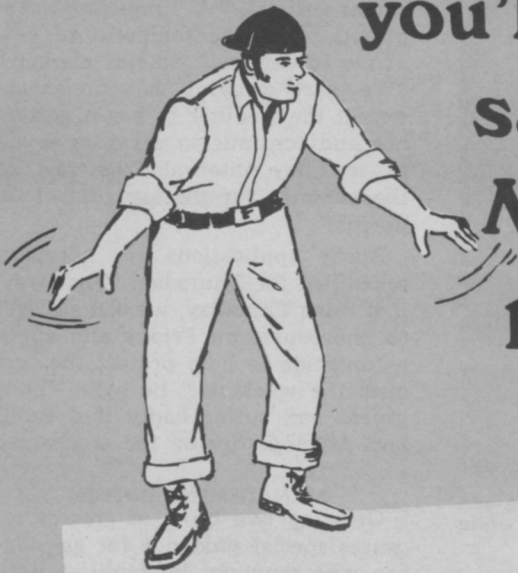
## BLUEGRASS AND BERMUDA

To compensate for this, Woodmont  
(continued on page 20)





If you know the score ...  
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 M60F6... the "big job"  
 power mulcher. YOU  
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The score says its Reinco 3 to 1. No power robbing belts or chains. No gear boxes or complicated take-off. Reinco's "Power to Spare" 240 cu. inch industrial engine can easily handle soggy or moldy straw or hay. The Reinco power mulcher is dependable. Its simplicity of design virtually eliminates down time. Its the 10 ton an hour work horse of power mulchers.

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**HERE'S THE BOX SCORE**

	Reinco					Brand F					
Horsepower	124					110					
Mulch Placement	85 Ft.					85 Ft.					
360° Continuous Boom Rotation	Yes					No					
Straight Thru Drive	Yes					No					
Minimum 60° Vertical Boom	Yes					Yes					
"Non-Clog" Beater Chamber	Yes					No					
Power Take-Off	Not required					Yes					
Pulleys, Belts, etc.	Not required					Many					
Asphalt System	Available					Available					
REINCO	1	1	1	1	1	1	1	1	1	1	9
BRAND F		1			1					1	3



Superintendent Bob Shields and son Glenn (l) discuss construction of a new green on Woodmont's north course. Glenn is working as his father's assistant while majoring in turfgrass management at the University of Maryland.

has bluegrass fairways and tees on its north course and bermuda grass on the south course. "The bluegrass goes dormant during the summer," Shields explains, "while the bermuda grass is just greening up in June and July.

Because of the reduced amount of play—and because the ground gets a little soft—we close the southern course during the winter."

Indicative of the tricky climatic conditions, the U3 bermuda grass variety on the south course finally succumbed to winterkill in 1963 after six seasons of struggle. The search for a hardier replacement led Shields to try P16 last year.

"The P16 has been looking good," Shields says. "It came through the winter in good shape. But this was a mild winter, so we may not know for sure for another year."

Greens on both courses consist of bentgrass. Arlington and Congressional bents were the original plantings but all greens have since been overseeded with Pencilgrass many times.

Shields ranks turfgrass management as a favorite part of his job. So having two different courses to manage suits him just fine.

#### DISEASE CONTROL IMPORTANT

The greatest similarity in managing the two courses is probably in the area of disease control. But the close cutting required and the increasing numbers of players make it a top priority item.

"We cut the bermuda-fairways at 1/2 inch and the bluegrass at 3/4 inch," Shields explains. "That's

really too short to cut bluegrass, but the players demand it. All we can do to counteract the close cutting is water the grass, but the lower cut causes stress and weakens the plants. This brings on other problems for us to contend with."

Long experience combined with good results at controlling diseases on greens has made Shields confident that he can control fairway disease problems, too.

"The development of locally systemic fungicides have eliminated a lot of our problems," he says. "Combined with the cool weather, they helped minimize our disease problems last year. And the fact that many products are water-soluble makes for improved control as well as easier application."

#### EXPERIENCE BREEDS INSTINCT

Experience breeds a kind of instinct for disease control, the Woodmont superintendent believes.

"Sometimes, I apply a treatment when I can just 'feel' a disease is imminent," he says.

"Basically, though, we follow a four-season preventive spray schedule combined with frequent spot checks of the growing turf. Most superintendents follow the preventive approach.

Utilizing the locally systemic fungicide, Acti-dione, he alternates with other similar fungicides to minimize any chance of developing resistance. Shields' year-round spray program has shown good results in warding off diseases like dollarspot, leafspot, rust and others.

"The use of fungicides and

good-quality, well-maintained spraying equipment can eliminate a lot of disease problems," he notes.

The hot days of summer are the time when fungicide application becomes critical. "A fungicide is required when the temperature gets above 85 degrees," Shields explains. "We start spraying as soon as we expect the weather to begin getting hot and continue to spray at seven to ten day intervals the rest of the summer for disease control on greens."

Spray applications are normally scheduled for Thursday. "That way, if it rains Thursday, we can still get on the course on Friday and apply a fungicide to help protect the turf over the weekend," he says. "Your greens can suffer badly if a problem develops during the weekend."

#### MANAGEMENT DIFFERS

Growing two types of grasses requires special guidance for employees who may not be familiar with the different practices required. Mowers are set at the appropriate height for each course and each machine is clearly marked to avoid confusion on the part of the operator. (Editor's Note: That's a management technique other superintendents may want to adopt.)

Weeds are as great a nuisance as disease, but Shields has found standard herbicides effective for most weed problems—with the exception of *Poa annua*. Recently he's been testing tricalcium arsenate for *Poa annua* control of bluegrass fairways. "It's tricky stuff because a little too much will injure bluegrass, too," he says. "But we've gotten pretty good results in our tests so far."

Fertilizer management requires separate treatments for each course. "On the north course, the bluegrass, we apply nitrogen, phosphorous, and potassium in early spring and fall," he explains. "The greatest amount goes on in the fall, during the cool weather.

"We apply some phosphorous on the bermuda fairways in spring and fall, but the bulk of the fertilizer—mostly nitrogen—is applied in the summer when the grass is actively growing. We're trying to minimize the phosphorous applications on both courses, since we believe it encourages *Poa annua* growth."

#### SUPERVISION IS IMPORTANT

Aerification and irrigation practices also differ for each course. The southern course's bermuda grass is aerified in the summer, and is less dependent on irrigation. The blue-

(continued on page 74)