

Word about the advantages of turf-type tall fescues has begun to spread among golf course architects and landscape contractors. Architects, such as Robert Trent Jones, Jr., and Dye Designs, have increased their use of tall fescues in roughs without sacrificing playability. By utilizing high-maintenance turfgrasses only where necessary, they achieve an overall savings in maintenance.

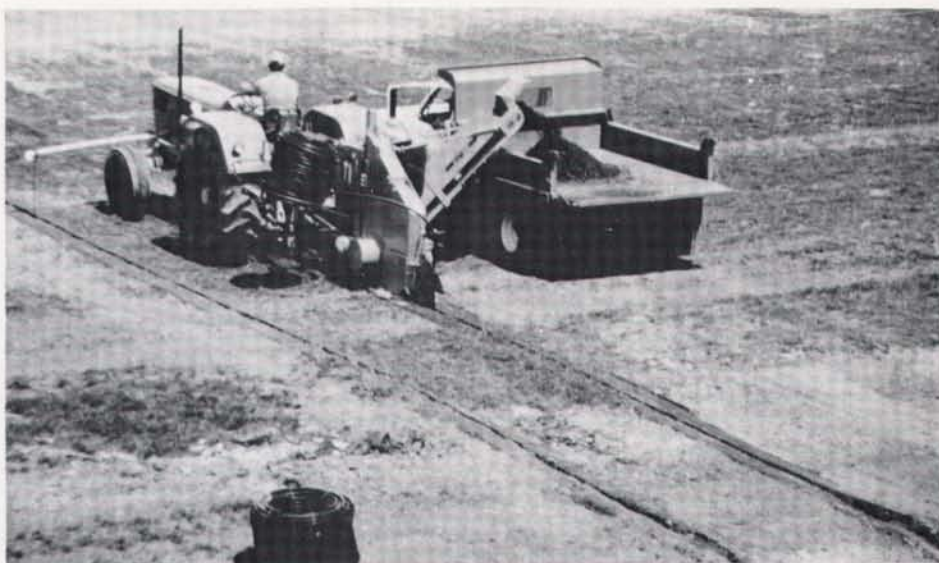
Joe Motz, president of Motz, Inc., a landscape contracting firm in Cincinnati, OH, believes tall fescues are the answer for facilities that want to upgrade their athletic fields but are limited in their ability to maintain them to professional standards. Motz, who built the fields at the Bengals' training center in Cincinnati and the College Football Hall of Fame at Kings Island, knows well the extent of maintenance for showcase facilities.

As vice president of the Ohio Turfgrass Foundation, he has heard the cry for better conditions at high schools and colleges. "Fields without proper irrigation, drainage, or type of turfgrass just can't hold up to heavy use," Motz states. "It's unreasonable to expect schools to build and maintain fields like a major stadium or training center. They need something that is realistic from a maintenance standpoint but will hold up to play and weather."

Motz is careful not to refer to tall fescues as being low maintenance. "The success of turf-type tall fescues is based upon key maintenance practices," he reveals. "We aren't talking about old, common types of tall fescue like K-31 or Alta. The improved turf types aren't pasture grasses planted on athletic fields. They need to be maintained year-round, but not as much as Kentucky bluegrasses."

When the University of Cincinnati approached Motz about renovating its soccer/intramural field, he began to formulate a plan that was in between his showcase facilities and superior to typical institutional designs. He knew that a sand-based field was impractical for the university due to construction and maintenance costs. Even so, he was determined to come as close as possible to sand-based drainage.

Tall fescues have better wear tolerance than Kentucky bluegrasses. However, unlike bluegrass, they are bunch-type grasses. A healthy plant can't spread laterally to fill in worn or damaged spots. The key to success with tall fescues is to protect them until they are established. Once a deep, vigorous root system is developed, the density of the stand can be maintained. At this



British machine digs trench, conveys soil to truck, and installs drain tubing in one operation.

point, the chief threats to the turf can be managed through proper drainage, fertilization, topdressing, and irrigation. Overseeding is also helpful in maintaining density.

Wet soils caused by poor drainage reduce the stability of the surface and encourage disease. Plants lost to surface damage or disease are not replaced without reseeding. That is why Motz was determined to provide adequate drainage to the soccer field.

He had read about sand bypass drainage, a technology developed by Geoffrey Davison in Cambridge, England, as a solution to wet weather conditions. Davison invented equipment that installs sand-filled trenches in golf greens and fields suffering from poor drainage. A network of these

trenches feeding into existing drain lines can prevent soil from becoming saturated and unstable.

Motz contacted Davison and discussed the soccer field project. Together they worked out a system of cross-linked trenches tied into peripheral drain lines. The specialized equipment was shipped from AF Trenchers Ltd. in England to Cincinnati. When the equipment arrived last spring, Motz moved his crew onto the campus to start the renovation project. Davison flew over to lend a hand.

"The field had to be ready by August 1," Motz recalls. "We wanted to give the fescue as much time as possible to establish. It was important to get the field renovated quickly."

*continued on page 22*



Second device backfills narrow trenches with sand.



## Tall Fescues

continued from page 21

"A track surrounds the field," says Motz. "Inside of the track were drainage swales containing collection pits. Water running off the 18-inch crown of the field ended up in the swales and finally the pits. There was no subsurface drainage. The school wanted to get rid of the swales to make the edge of the field even with the track."

But first the mains and laterals for the irrigation system had to be installed. The design included 49 Toro 640 sprinkler heads spaced on 40-foot centers. Pipe for these had to lie below the depth of the network of drainpipe and sand slits. Motz allowed six inches for safety and placed the irrigation lines 18 inches below the surface.

Motz calculated that 1,000 cubic yards of topsoil were needed to fill the swales. Once the dirt was in place, four-inch-wide trenches were cut down both sides of the field. Perforated pipe was placed in the trenches, since they would eventually be filled with pea gravel to act as french drains. Smaller drainpipe crossing the field would also be connected to peripheral lines.

"We did not kill the existing turf, since we wanted to protect the structure of the soil," Motz added. That came later, when the drainage project was completed.

The efficiency of the imported equipment became apparent as the first cross-field drains were installed. In a single pass, the trencher cut a two-inch-wide trench 12 inches deep, conveyed the soil removed by the "Wiz-wheel" onto a truck, and pulled 35 mm perforated tubing into the bottom. A second piece of equipment backfilled the trench with four inches of pea gravel followed by sand. The small tubing was connected to the peripheral drains on both ends. In this fashion, cross-field drainage slits were installed every six feet.

A second series of trenches was cut eight inches deep the length of the field and backfilled with sand. These trenches intersect the cross-field drains every two feet in the center of the field and every three feet on the sides.

The existing turf was sprayed with Roundup. After a week, the entire field was topdressed with 1/4 inch of sand and the periphery drains were backfilled with pea gravel. In total, the drainage system required 450 tons of sand and 100 tons of gravel. Finally, the sprinkler heads were connected to their risers.

With the field scheduled for opening in just over two months, Motz didn't want to



Geoffrey Davison (left) and Joe Motz (right) connect cross-field drain tubes to side line drainpipe.

take any chances with seedling diseases. He had selected a mixture of Finelawn 5GL tall fescue and Chateau Kentucky bluegrass, treated with Apron.

By weight the mix was 95 percent tall fescue and five percent bluegrass. "This is a little deceptive," explains Motz. "If you go by seed count, the mix is more like 70 percent tall fescue and 30 percent bluegrass. The bluegrass fills in around the fescue to eliminate any clumpiness and gives the stand a softer look and feeling."

The mix was sown at eight pounds per 1,000 square feet in May. The crew applied a starter fertilizer high in phosphorus (8-33-16). After blowing on straw mulch, Motz programmed the irrigation system to come on three times each day.

By the end of the third week, the field was ready for its first mowing. The company used an out-front reel gang mower on a four-wheel-drive Steiner tractor to baby the turf and the surface. "We mow tall fescue on four-day intervals at 2-1/2 inches," says Motz. "If you let it get too tall, the blades get wider and the turf looks more clumped. The idea is to build up density quickly."

A pound of nitrogen (50 percent sulfur-coated urea) with micronutrients was spread after treating the young turf with Subdue. "Tall fescues have a lower fertility requirement than Kentucky bluegrasses, but you have to push them the first year," says Motz. "We apply about a pound of nitrogen each month during the fall. The first year the field will receive 6-1/2 pounds of nitrogen. From then on, we'll drop to five pounds."

Because of high fertility and frequent irrigation to get the fescue established, you

also need to protect it from opportunistic diseases. Motz's program included two treatments with Subdue followed by one application of Daconil 2787 for brown patch. "By providing good drainage and infiltration, you avoid damp surface conditions that encourage diseases," Motz points out. "Once you get it established, however, you irrigate and fertilize less than other cool-season grasses. In the long run, you have fewer problems with diseases and insects."

After the University of Cincinnati completed its first soccer schedule on the new field, Motz was back to overseed. "Three things keep it dense: fertilizer, overseeding, and regular mowing," he remarks. "If you don't overseed, you have to fertilize more."

Motz has two goals for the Cincinnati field in the coming years. The most important one is to keep the sand bypass system functioning properly by aerating, verticutting, and topdressing with sand. The second is to maintain turf density throughout the playing season by overseeding.

So far his techniques have worked successfully at more than 25 high schools and a dozen colleges. He has created a sports turf division for his landscape company to concentrate specifically on construction and maintenance of athletic fields.

Three states to the west, superintendent Mike Hulteen has managed a wide assortment of turfgrasses on Kansas golf courses for more than ten years. He started out with bermudagrass on a public golf course in Chanute, moved to a private country club with bluegrass and ryegrass fairways and roughs, and today is responsible for zoysiagrass fairways and tall fescue roughs at a high-end daily fee course in Marysville.

"Lower maintenance turfgrasses are being tried by all types of courses today," Hulteen remarks. "It's pretty common for a superintendent to have three or more different turf species on his course."

Hulteen has worked for North Star Development for the past four years. The company owns and operates resorts, private country clubs, and daily-fee courses from Myrtle Beach to Palm Springs. Deer Creek, where Hulteen works, is a high-end daily-fee course designed by Robert Trent Jones, Jr. This past August, just a year after it opened, Deer Creek hosted the Ben Hogan Tour.

"This course was designed and built to provide a country club surrounding in a daily-fee facility," says Hulteen. In addition to a tour-quality golf course, Deer Creek features a pool, tennis courts, and a full-ser-



vice clubhouse. It derives its income from use fees and corporate memberships. There are no initiation fees.

The golf course was built along the banks of Tomahawk Creek and features many old hardwoods. The location adds to the maintenance challenge, because it is subject to periodic flooding and has many areas of heavy shade. In the summer and fall, heat and humidity keep Hulteen and his crew on their toes.

Surprisingly, the course has experienced very few serious maintenance problems. The only serious challenge Hulteen recalls was a flood last May which deposited drifts of silt on the newly-planted fairways and roughs. This was just three months before the Hogan Tour was scheduled to arrive.

"We had drifts of silt up to three feet thick," says Hulteen. "We had sodded everything except the roughs, where we seeded with Triathalon tall fescue. The greens were sodded with Penncross and the banks of the tees and greens with Kentucky bluegrass. We had to use fire hoses and squeegees to wash the silt off all the sod. But all we had to do for the roughs was grade the silt off and overseed lightly



Tomahawk Creek runs through Deer Creek Golf Course.

with more tall fescue. The fescue came back up in a few days saving us hours of time we needed to rebuild all the bunkers." The tournament took place without a hitch.

Hulteen has discovered that tall fescue and zoysiagrass are compatible in many

ways. The obvious difference is the zoysia is cut at 3/8 inch while the tall fescue is maintained at 2-1/2 inches. The ball sits up well on both. The 50 acres of rough are mowed with a rotary twice a week. "Rota-

*continued on page 24*

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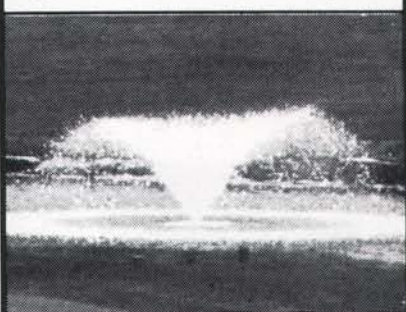


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Many hardwoods create dense shade in the rough at Deer Creek.

### Tall Fescues

*continued from page 23*

ries have a vacuum effect that stands the blades up," he remarks. "You need to monitor mowing to prevent the fescue from getting grainy. The Triathalon isn't nearly as grainy as K31. If it starts to lay down, we apply extra potash."

Other observations by Hulteen about his tall fescue are its tendency to go chlorotic quickly and to grow more slowly during droughty periods. "We supplement fertilization with applications of iron," says Hulteen. "Other than that, we apply about four pounds of nitrogen a year, most of it Nutralene and IBDU, from September into fall. In the spring, we give it a shot of one quarter pound."

"I've seen symptoms of brown patch, but it's never devastating like Pythium on bluegrass or ryegrass. The fescue grows out of it without applying fungicides. It also performs extremely well in the shade."

One unique situation at Deer Creek has been with white grubs. "After the course was completed, there was no evidence of grubs," he recalls. "This year I noticed some damage in the bluegrass sod, but not in the tall fescue."

Overall Hulteen sees tall fescue as a good surface that needs relatively little care. It bounces back quickly after stress and can always be repaired by drill seeding. This is especially helpful in areas with heavy cart traffic, he adds.

Deer Creek's irrigation system is wall-to-wall. Tall fescue was chosen for the roughs so the course could concentrate its water

where it was needed most. Because it is fairly drought tolerant and bounces back quickly, Hulteen has been able to irrigate his roughs less often.

"It's like anything else," he concludes. "The more you understand about tall fescue, the better you can gauge when it needs attention. If you get a good maintenance routine going, it's fairly easy to manage."

**When used in place of higher-maintenance grasses, tall fescues offer savings that add up acre-by-acre and drop-by-drop.**

Motz and Hulteen appreciate tall fescue's place in turf management today. However, they both know that too often low maintenance is considered to be almost no maintenance.

In general, turf-type tall fescues require less water and fewer pesticides. For this reason, they help the golf and sports turf industries respond to modern environmental concerns. In addition, they tolerate various stresses, such as traffic, drought, shade, and pests, better than many other turfgrasses. When used in place of higher-maintenance grasses, tall fescues offer savings that add up acre-by-acre and drop-by-drop. ☼



# My Diamond Anniversary In Golf

By Bob Hope

**G**olf is a great game. I've been at it for 60 years, and a little more if you count my first aborted stab at it. Back when I started playing the game seriously in the spring of 1930, the only people who made real money from it were chiropractors.

Most golfers started playing the game because it looked interesting. I thought it was boring. But I also thought it would be less boring than what I was doing – sitting around hotel lobbies between vaudeville shows.

Why did golf bore me? Well, as I confessed to Dwayne Netland in our book for Doubleday, "Bob Hope's Confessions of a Hooker: My Lifelong Love Affair with Golf," the first time I tried the game I was a total failure. That happened in 1927, when I was 24 years old. It was at Highland Park, a public course in Cleveland, OH, the town where I grew up. I understand some of you readers manage public golf courses, and my hat's off to you for making golf available to the general public. Unfortunately for me, I was one member of the public who wasn't yet ready for golf.

I couldn't even advance the ball. Some shots I'd whiff, some I'd just scuff along the ground. I just didn't seem to have any feel for the game, so I said the hell with it and quit. Maybe some of you golf course superintendents out there had the same experience the first time around. And now you're reading *Golf & sportsTURF*, while I've got the Bob Hope Chrysler Classic coming up in February. As I always say, there's Hope for everyone.

Then, in 1930, my real love affair with golf began. I was in vaudeville, playing the Orpheum circuit, the northern route. I was doing afternoon and evening shows in Winnipeg and Calgary up in Canada; in Minneapolis, MN, and in Seattle and Tacoma, WA. (Yes, I was an international traveler even then. But in Calgary 60 years ago, there wasn't exactly a stampede to the theatre to see me.) So there was nothing to do in the morning except sit around hotel lobbies, hoping my agent would call and have me paged so I'd look important.

Sharing the bill with me that season were the Diamond Brothers, a comedy act. I used to see the Diamonds come clattering through the lobby every morning with their golf bags, but I wasn't really interested.

Then, one day in Seattle, they invited me to come along. I borrowed a set of clubs and started hitting the ball pretty well, to my surprise. I got hooked on golf that day, and I've been addicted to it ever since.

Speaking of addiction, I'm against drugs, both as a father and as a golfer. At least golfers just *move* the grass plants a little bit. Other athletes are smoking them! Golfers don't take drugs, because it would be too obvious. The alligator on their shirts would roll over on its back.

Yet I'm delighted to be hooked on the game. In fact, I consider golf to be my profession and comedy just a way to pay my green fees. I've spent so much time on golf courses that I'm regularly

*continued on page 26*



Hope has helped promote golf around the world.





Gerald Ford is one of Hope's many presidential golf partners.

### Bob Hope

*continued from page 25*

mistaken for a doctor, especially since I started handing out two aspirins to my caddies as tips.

Yes, golf is my real racket, and I try to play every day. My home club is Lakeside, in North Hollywood, CA. But since I travel so much, I've played most of the top courses in the United States and, in fact, the world.

I've played in sunshine and in snow, and even off the decks of aircraft carriers. The best thing about playing on a carrier is that it comes equipped with its own ball washer. Of course, your caddie has to know how to swim.

However, when you commune with nature on those beautiful courses like Pebble Beach, Cypress Point, Capilano in Vancouver with that glorious view from the tees, Deepdale and Meadow Brook with Long Island Sound in the background, or the desert courses around Palm Springs, with the mountains looming just off the green fairways...well, it's just fantastic being out there.

I hardly ever travel without my golf clubs, though I stick pretty close to Los Angeles and my second home near Palm Springs during the winter months. But in 1983, for some reason, I did five shows in Minneapolis in March. Well, we got hit by two blizzards. I had to kick away the snow to open the stage door at the theater. After getting home, I went to the Eisenhower Medical Center to have my head examined.

I'm not the only golfer in my family. My wife, Dolores, just loves the game, and she has always been a competent player. She

has a record at the Lakeside Golf Club that may never be eclipsed—five times the women's club runner-up, never the champion. I've kidded her a lot about that over the years.

My handicap today is 20, and I'm comfortable with that at a time when my age, 87, is finally within shooting distance of my score. (I have already shot George Burns' age, by the way. As for Milton Berle's, it's too close to call.) But at one time, in the early 1950s, I had it down to six. It was actually a four for one week in 1951, when I went over to play in the British Amateur at Porthcawl in Wales. But that's another story, and we're talking sports turf here, right?

Actually, as you may suspect, like most



Sam Snead helped Hope get his handicap down to 4.

golfers I don't know much about turf management, except that without it I'd be playing on dirt. Yet I really appreciate what you guys are doing for duffers like me, and that's why I'm recalling some of my own experiences in golf especially for you.

Incidentally, I was happy when the following quotation from the GCSAA magazine, *Golf Course Management*, was brought to my attention recently. Mike Mongiello, CGCS (Eldorado), cited my attention to members of your profession during the Bob Hope Chrysler Classic:

"He knows who all the superintendents are (where he plays). He's very congenial. He'll wave and say something like, 'Great job!' or 'Great shape.' He knows who has been out there early supervising the mowing and seeing to the turf." Thanks for those kind words, Mike.

However, I have a confession to make: I have a typical amateur's ego about golf course design. Most golfers think we could design a golf course if we had to, and I'm no exception to that rule. Maybe that's what they mean by "Ignorance is bliss."

Anyway, I have another confession to make, just between us golf course supers, right? Lately I've begun to think of myself as sort of an amateur course designer. Honestly! I believe that I could lay out a course in three hours. Build this par three over the water, install a trap there to catch the tee shots on the dogleg of a par four. It's not such a big deal.

Merion and Pine Valley, two of the finest courses you'll find anywhere, were designed by amateurs who had never built another golf course. Hugh White did Merion and George Crump did Pine Valley. And what superb jobs they did. Even Jack Nicklaus started as a golfer (and what a golfer!) before he began designing courses. So give us golfers a break, Pete Dye, wherever you are.

Actually, we're the lucky ones. We can just take the efforts of golf course designers, golf course superintendents, and their crews for granted, and go out and enjoy the fruits of their labors any day of the week, if we can spare the time from our schedules. But believe me, fellas, those labors are very much appreciated by yours truly.

It's easy to be a nice guy when you're playing golf, unless you're the club-smashing type, because golf has a very salutary effect on the soul. In other words, it's a great relaxant. It has given me a chance to see some of the world's most beautiful scenery and meet some of the world's nicest people. An awful lot of them are golfers, and



a few of them were White House residents. President Eisenhower, whom I knew particularly well, was perhaps the most famous golfer among our presidents.

I've had the pleasure of playing golf with six presidents—like Eisenhower, John Kennedy, Lyndon Johnson, Richard Nixon, Jerry Ford, and Ronald Reagan. Reagan doesn't play much anymore, but he once broke 100. I think that's pretty good for a man on horseback. But George Bush seems to prefer pitching horseshoes on the White House lawn and at Kennebunkport. I wonder if he gets them from Reagan at a cut rate.

High on my list of the things I love about golf are the courtesy, good sportsmanship, and good humor I have found on courses from Alberta and Alaska to Winnipeg and Wyoming; from St. Cloud in France to St. Andrew's in Scotland, the country that gave birth to golf.

Say, those Scottish caddies are great. I get new material from them all the time. One old fellow at St. Andrews told me, "I had a golfer who was so lousy he threw his clubs into the water. Then he dived in himself. I thought he was going to drown, but I remembered he couldn't keep his head down long enough."

Of course, golf is big business today. The purses have become fantastic, and the commercial tie-ins are sensational. Take Arnold Palmer. Or better yet, take his bank account, especially since he started doing ads and commercials. Unfortunately, the earlier legends of golf didn't have this opportunity. They were born too soon to cash in on the big TV money. So was I. However, I just played on through.

When I received the Old Tom Morris Award several years ago from the Golf Course Superintendents Association of America, Arnie was the presenter, because he had been the only previous recipient. I felt pretty good about winning the award, because it's one of the most prestigious honors anybody like me could hope for. To a dedicated golfer like yours truly, it ranks right up there with the Oscars.

So I was pretty excited when I reported to a hotel in Las Vegas for the ceremony. I knew Arnie was already there, because I saw his tractor in the parking lot. Confidentially, Palmer was not in a real good mood that day. He had just seen a commercial on TV that he wasn't in.

But seriously, I think it's great that our star golfers are involved in so many commercial enterprises, including those TV commercials. It's good for them and good



Two giants in golf, Hope and Arnold Palmer.

for golf. They've certainly earned it. But I sometimes wonder if Palmer isn't getting too involved with commercials. When he missed a putt the other day, he put the ball back and called out, "Take two!"

Actually, I have always been pleasantly

struck by the fact that no matter how fierce the competition or how big the purse, professional golfers have always behaved like the ladies and gentlemen they are.

You won't see in golf the childish temper tantrums that sometimes cheapen and demean other professional sports.

In fact, they won't even let me get away with that sort of stuff at my own tournament, the Bob Hope Chrysler Classic. And I even brought in a tantrum permission slip from John McEnroe!

Whenever I think about all the people who have made golf great, many of whom I've had the honor and joy of playing with—people like Arnold Palmer, Jack Nicklaus, Tom Morris, Jan Stephenson, Gene Sarazen, Nancy Lopez, and Ben Hogan—the list goes on longer than I do—I am struck by the fact that not only were they all fine golfers, but fine human beings.

Well, thank God, I've now spent 60 years playing golf. And I'll keep on playing, the good Lord willing, until I do shoot my age. That might not be till I'm 125. You never know!

*Editor's Note: The 32nd Annual Bob Hope Chrysler Classic will take place in Palm Springs, February 2-10, 1991.*

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### TREATED SEED STRONG DEFENSE AGAINST DISEASE

**I**n the favorable climatic conditions of spring and fall, you can practically watch newly seeded turfgrasses grow. What you can't see – but can prepare for – is soilborne fungi attacking unprotected seeds and tender emerging roots below the surface.

Delayed germination and blighted stands can be avoided, says Dr. Phillip Colbaugh, plant pathologist at Texas A&M's Agricultural Experiment Station in Dallas. The researcher recently completed a series of laboratory and field trials that revealed the benefits of planting seed treated with fungicides and careful irrigation.

Colbaugh and his assistant, Tom McAfee, evaluated seedling growth and control of Pythium blight on turf seeds treated with a combination of commercial fungicides. Their data showed that average stand counts were significantly enhanced and incidence of Pythium infection was diminished when seeds were treated with a fungicide mixture. Treated varieties also emerged more quickly (with the exception of Kentucky bluegrass) and produced stands 20 to 95 percent fuller than untreated varieties.

Gustafson, Inc., of Plano, TX, supplied the perennial ryegrass, fine fescue, tall fescue, and Kentucky bluegrass seed for the trials. Treated and untreated seed was planted on outdoor plots in October 1989 at a rate of ten pounds per 1,000 square feet. The researchers counted the turf stand in each plot once a week for three weeks beginning in November. Seedlings were moved later from the plots to greenhouses to test disease resistance.

"Pythium and other soilborne diseases, like Rhizoctonia and Fusarium, lurk in almost every soil that benefits from regular watering and fertilization," Colbaugh notes. "Pythium is attracted to moisture and attacks the root system of even the hardest turfgrass, causing the foliage to blight. Basically, as growers, we do everything we can to encourage soilborne diseases."



Overseeding with treated seed improves speed of germination and density.

Many disease problems affecting turfgrass seedlings are generically described as "damping off," a disease complex that can be caused by one of several pathogens in the soil. However, Pythium is the most common culprit.

"I don't think enough growers realize the economics of planting treated seed," Colbaugh adds. "It is like term insurance. You get 30 days of protection while new roots are getting established and a good stand is started."

For example, perennial ryegrass seed treated with a fungicide like Apron costs only about four cents more per pound, or 16 cents per 1,000 square feet, according to commercial suppliers in the Pacific Northwest. Market estimates indicate that less than 25 percent of overseeded turfgrasses are treated for disease control.

Turfgrasses that are sown at high rates are especially vulnerable because the emerging seedlings will already be weakened from having to compete for light and nutrients. Overseeded grasses fit this category.

Colbaugh says timing of overseeding is critical in determining the threat from disease. If fall seeding dates are too early, soil temperatures are warmer and favor the growth of several Pythium species capable of invading tender seedlings. "Ideal planting windows are very small, and if you plant outside of them, you tip the balance in favor of fungi," he warns.

Six chemical treatment combinations were used to treat seed from each of the

test grasses. Both treated and untreated seed was then planted in outdoor plots on October 20. Eighteen days later, the turf stand in each plot was counted. Two more counts were taken at eight-day intervals.

Perennial ryegrass treated with an Apron/Epic/Magnum 2.5 combination resulted in 18-percent better stand than untreated ryegrass after 18 days. The most dramatic results were found after 34 days with fine fescue and Kentucky bluegrass. Fine fescue treated with the same fungicides in a 5.0 combination registered a 33-percent increase. One of two Kentucky bluegrasses treated with Apron and Epic filled in 100-percent faster than its check plot!

Colbaugh and McAfee moved seedlings from the plots to greenhouses to test for disease resistance. Treated and untreated seedlings were inoculated twice with Pythium. Three weeks after the first inoculation, 66 to 95 percent of the untreated seedlings were blighted. Perennial ryegrass and Kentucky bluegrass treated with the fungicide combination showed no detectable infection, and only 3.3 percent of the treated fine fescue had signs of infection.

"The argument for treating turfgrass seed is overwhelming," Colbaugh reports. "You gain 30 days of protection from seed- and soilborne diseases at a time when your turfgrass builds in stand and stamina. The results are unquestionably superior."

*The common names for the fungicides mentioned above are metalaxyl (Apron), iprodione (Epic), and dithiocarb (Magnum).*