



Minnesota course improves on history

Superintendent Doug Mahal tackles the challenge of working within the historic designs of a century-old course while improving drainage and practicing environmental stewardship.

By BRIDGET FALBO

About 100 years ago two bicyclists toured the countryside of the then outskirts of Minneapolis. Sitting atop a hill overlooking the shores of Lake Calhoun, they had the idea that the place would make a great golf course. And so it did.

Now enveloped by a posh south Minneapolis residential neighborhood and bordered on one side by a busy thoroughfare, the 154-acre Minikahda Club celebrates its centennial in 1998. Already one special event is in the works: Minikahda will host the 1998 Curtis Cup, a USGA women's championship matching U.S. amateurs with the best of Britain and Ireland.

"1998 will be pretty big year for us," says Superintendent Doug Mahal who, keeps the course in shape with the help of 24 fulltime employees and six seasonal workers.

Mahal says that part of the reason he applied for the superintendent position at Minikahda in 1990 was that it was a family oriented club. Mahal's experience includes

10 years as superintendent at Interlachen, another prestigious Minnesota course. He is a graduate of the University of Minnesota.

First for many tourneys

According to Mahal, every major USGA championship held west of the Mississippi, was held at Minikahda first. The course features design work by Donald Ross, and Mahal tries to manage the course within the designs established by Ross, since "his designs have withstood the test of time from a golfer's standpoint."

The greens are small, and protected by many bunkers.

The course stretches 6700 yards in length over rolling terrain, with fairways bordered by mature elms, linden, pine and spruce. With the trees to factor in, Mahal says the challenge to the golfer is in accuracy not distance.

The older design, with inherent drainage problems, causes many maintenance issues that new courses would not run into. Consequently, it requires more labor to maintain. Steep hills slope away

▲ The course at Minikahda has 'no mow' areas that save time and money.

from many of the fairways, greens and tees. "We don't want to change a lot of the contours because he (Ross) did them for a purpose," says Mahal. But some hills are so steep that they must be hand mowed with a floating mower.

Years ago, before today's sophisticated irrigation systems, courses were planned, with the placement of clay soils, to hold water to a certain extent, says Mahal. Sometimes not much emphasis was placed on drainage. Minikahda, in fact, contained several low spots that drained poorly. Heavy rain caused water to stand on several fairways. Because of this, these areas were particularly susceptible to Pythium and other diseases.

"That's the best \$5,000 I've ever spent," says Mahal of the 1500 feet of drain tile that he installed on two fairways.

Also, a county drainage ditch runs through the course, resulting in flooding on the 11th hole and then the 9th hole in

heavy rain storms. Mahal and his crew built three drainage ponds within the confines of the drainage ditch. When the rains fall—as they did this July with rainfall three times the average—the ponds slow down the water and retain it so it doesn't spill out onto the fairways.

The crew also created natural buffers along the waterway, a band of long growth consisting of naturalized prairie and wetlands plants like blackeyed Susan and bee balm. This buffer soaks up extra moisture, traps sediment and also prevents fertilizer runoff from entering the waterway which eventually drains into Lake Calhoun.

The natural buffer zone is an example of the way Mahal sometimes breaks with tradition when it means doing things a better way. Mahal was recognized by Links Magazine with an Environmental Stewardship Merit Award based on his work with wildlife and water quality enhancement, water conservation, pesticide handling and use of organic fertilizers. He also received a Merit Award from GCSAA's Environmental Steward Award program.

Organic base to fertilizers

Mahal has worked out some environmental strategies that include using fertilizers with an organic base for 90 percent of his applications, and cutting down his pesticide and herbicide use to 25 percent of what it used to be. Mahal bases his practices on the research into the microenvironment of the turfgrasses. He explains that when pesticides are used indiscriminately, much of the beneficial fungi which actually help prevent disease are killed along with the harmful fungi. With that in mind, Mahal treats only when a disease like *Pythium* has been identified.

"It used to be that by this time in July I

would have treated three or four times with a fungicide. Now, and mostly because of all the extra moisture we've had, I've only made one fungicide application of

Banner to our 25 acres of fairway," says Mahal.

How's \$30,000 sound?

Mahal believes that these practices have saved him about \$30,000 a year, and the savings more than pay for the extra expense incurred by using the more costly organic fertilizers. He uses Ringer natural organic fertilizers, with a base of blood meal and feather meal as the primary N sources, at a rate of a half pound/month of N. Organic fertilizers help build the population of micro organisms, helping reduce disease pressure, believes Mahal.

"We've also been working to

reduce our maintainable acres," says Mahal, letting areas outside of the fairways and roughs grow long with native grasses. This new course management practice reduces manhours and water, herbicide and fertilizer use.

Minikahda has a seven acre wooded area that members call the bird sanctuary for obvious reasons. "No mow" areas border the out-of-play side of a newly renovated pond on the sixth hole, throughout the wooded strips that separate the holes and near the drainage areas.

More golfers, more demands

Although a private club, Minikahda is feeling the pressure of being only 10 minutes from downtown Minneapolis. Mahal explains that the course was designed to handle 5,000 rounds of golf each season, but now sees at least 25,000 rounds.

Today's players also expect more out of their tees, fairways and greens. "Greens used to be ¼-inch long; now they want them at ½-inch; fairways were one inch, now they're at ½-inch."



Donald Ross designs have withstood the test of time from a golfer's standpoint, says Doug Mahal.

Mahal says it's a balancing act to keep the course smooth and quick, but alive. For special events he can increase the speed of the green by double cutting and rolling for several days prior to the event.

"That kind of abuse will take its toll on a green so we have to back off," says Mahal. The greens are top-dressed with silica sand every four weeks to help with compaction and to control thatch.

Mahal doesn't see any special treatment to prepare Minikahda for next year's Curtis Cup.

"I think our fine turf systems will be good. We'll slick up the greens to make them smooth and fast. I don't see any changes for the tees and fairways," explains Mahal. "They might want to increase the rough heights, depending on how dense it is." □

Wages based on length of work

Doug Mahal bases wages on experience, merit and compliance with a length-of-work agreement.

▶ A first year, inexperienced employee starts at \$7 per hour, which includes lunch. If the employee opts out of the lunch perk, he or she gets \$7.40/hour.

▶ Getting employees to stay the season was a problem, until they added a bonus of up to 60 cents/hour for every straight time hour worked during the period agreed to work, when the person was hired.

▶ If an employee stays for the whole season, there's a bonus at the end of the season of 20, 40 or 60 cents, depending on work performance during the season. That inexperienced employee could ultimately make \$8/hour.

▶ Base pay for experienced employees ranges up to \$7.75/hour. BF