

Preparing Riviera for the Nissan Open

By Christopher Chase, University of Wisconsin-Madison



BACKGROUND

The Riviera Country Club, located in Pacific Palisades, California, is truly one of golf's greatest treasures. George C. Thomas began construction in 1920 and by completion had created a golf course that would prove to be a test for the best golfers in the world for years to come. Since its opening, Riviera has served in two major capacities. It is a glamorous layout for Hollywood's elite as well as a proving ground for serious golfers. The Riviera has hosted the 1948 U.S. Open, 1983 PGA Championship, 1995 PGA Championship, 1998 U.S. Senior Open, and is the annual site of the Nissan Open.

One cannot discuss Riviera Country Club without mentioning Ben Hogan. Ben Hogan won the 1948 U.S. Open and two Nissan Opens at Riviera. Soon after, Riviera adopted the nickname "Hogan's Alley." Jack Nicklaus includes the par 4 second hole and par 3 fourth hole among his 18 favorite golf holes. The course has

received countless accolades throughout the years. Golf Digest currently ranks the course twenty-second in the nation.

This course has seemed to transcend time, providing a great test of golf in a beautiful environment. Management, members, and golfers all believed that the Riviera was deserving and ready for another U.S. Open. However, all that would change during the 1995 PGA Championship. The Riviera was slated for the Nissan Open in February and the PGA Championship in September. The greens at the time were showing signs of age. They were over 50% *Poa annua* and had over an inch of thatch. Six months prior to the Nissan Open, the decision was made to sod the greens with 'Crenshaw' washed sod. The sod took very well, and under normal circumstances, would have worked out fine, but two major tournaments proved too much for the young turf. Under the stress of a low-mowing

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height, double-cutting, rolling, foot traffic, and no water, the greens survived but were marginal at best for the Nissan Open. Due to shallow rooting, the superintendent was reluctant to mow at a low enough height and was simply unable to go the 4 days without applying water to the greens. The greens survived, but were highly criticized for playing too slow. They were rolling a mere 8 feet on the stimpmeter. After the Nissan Open, the club had 6 months to get the course ready for an even bigger tournament—the PGA Championship. The week of the PGA Championship rolled around and everyone was discussing the speed of the greens. It was made very clear by the PGA that the greens had to be rolling at least 10 feet on the stimpmeter. The health of the bentgrass still was not up to par and in the week prior to the tournament, the superintendent pressed his luck. He was double-cutting the greens and rolling them with 1-ton rollers. At the start of the tournament, the greens were up to speed, but were suffering. The greens gradually got worse throughout the weekend, and by Sunday, the PGA agronomist estimated that 70% of the turf was dead. Words cannot describe how poor the conditions of the greens were. The superintendent lost his job and the press was brutally honest about the greens. This was a major tournament with

greens that were dead. Riviera's reputation was ruined and it was doubtful it would ever host another PGA tour event.

Riviera would do the only thing they could to gain back the trust of the PGA. They hired Paul Latshaw as their superintendents. He is arguably one of the best superintendents in the country. More important, he is trusted by the USGA and the PGA. He is the only superintendent to have hosted the PGA Championship, the Masters, and the U.S. Open. He has worked at Oakmont, Augusta National, Congressional, and Riviera.

GENERAL PREPARATIONS

The Nissan Open is an annual event held at Riviera the week of February 14 through 21. Throughout the year, the course suffers significant cart damage. This damage becomes more apparent in the winter months when the turf is exposed to colder weather and less sunlight. In addition, it is not always possible to accomplish all management goals because of limited staff and less sunlight. Therefore, it is important to take preventative measures well in advance to avoid problems nearer to the tournament. We decided to restrict carts to the paths only beginning January 1, thus giving the course ample time to recover from cart traffic damage. This policy was also adhered to by the maintenance crew. The entire course was closed one week prior to the tournament to further lessen any foot traffic damage and to allow for the maintenance crew and volunteers to work unobstructed.

Volunteers are a vital part of every major golf tournament. With all PGA tour events, there are plenty of people willing to volunteer — we had superintendents, students from area turf schools, crew members from area courses, sales representatives, and friends and family of crew members. We had young children filling in divots, superintendents mowing fairways and mothers of workers whipping greens. In total, we had over 100 people preparing the course for play. It is the responsibility of the host superintendent to provide housing, transportation, and meals for the volunteers, which is a task taken well in advance. We booked 22 hotel rooms, 3 shuttle buses, and catering service for the meals.

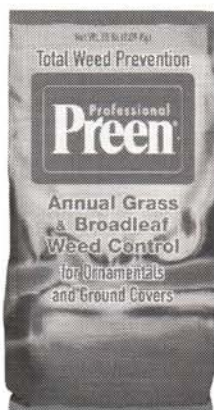
The PGA sets various guidelines to assist the host superintendent in preparing the golf course. A PGA tour agronomist visits the site months prior to the tournament to evaluate the course. The main objective is to provide a golf course that tests the players' skill, is fair to all contestants, and that has consistent playing conditions in all areas of the course. About a week after the visit, the superintendent receives a report with necessary changes and recommendations. The Riviera is an annual PGA site so there were no drastic changes needed. Obviously the Riviera membership wants the course to play easier than tournament conditions. For the

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Nissan Open, we had to narrow a number of fairways, adjust mowing heights, and increase green speed.

GREENS MANAGEMENT

Putting greens are the most important area on any golf course. During a PGA tournament, the emphasis on quality greens is enormous. When players give their opinion on course conditions, they almost always comment exclusively on the putting greens. Given their importance, it is the superintendent's main focus to achieve perfect putting conditions. Ideally that means greens that are firm and fast.

The Riviera has 107,000 ft² of putting greens. They consist of about 60% *Poa annua* and 40% bentgrass. The greens were constructed to USGA specifications (80% sand/20% peat moss). Throughout the year, the greens are cut at a height of 0.125 inch. The greens are hand mowed with Jacobsen, 18-inch fixed reels. All mowers are equipped with Wiley rollers except for the clean-up mower, which uses the solid roller. We have found the solid roller to be less abrasive when following the contours of the greens on the clean-up pass.

The sixth green is one of Riviera's trademarks. It is an 8,000 ft² green that has a bunker positioned right in the middle of it. This green is very contoured and tucked away in the far corner of the course and is severely shaded by surrounding eucalyptus trees. Due to the shade and lack of air circulation, we have struggled to maintain strong turf on it. There are a number of measures taken to address these problems.

First, we mow the green with a Toro floating reel walk mower at 0.135 inch (a fixed-reel mower would scalp the undulations). The higher mowing height is maintained to stress the turf less. If possible, we wait until the green is dry before mowing to further lessen the stress.

Air circulation is another problem we needed to address. Lack of air movement has resulted in numerous problems on this green, including brown patch, Pythium root-rot, surface algae, and lack of growth. The obvious solution to this problem would be to remove the surrounding eucalyptus trees, therefore allowing air movement and morning sunlight.

However, the trees are not on golf course property and it has not been possible to obtain permission to remove them. Mr. Latshaw decided to create the desired environment himself. We placed two large oscillating fans on each side of the green to circulate the air above ground and installed a sub-air unit. The sub-air unit blows air down through the drainage system and up through the green. If you take a soil probe anywhere on the green and probe down about 12 inches and put your hand over the hole, you can feel the air blowing up. This sub-air keeps the roots dry and supplied with oxygen. Finally, we installed six 1500-watt metal halide lights surrounding the shaded portion of the green. Without

the lights, areas of the green received no morning sunlight and in the winter had less than 6 hours of sunlight. These lights have an adjustable crank shaft to raise and lower them. We ran the lights in accordance with the amount of daylight hours. Throughout the winter we ran the lights approximately 12 hours on and 12 hours off. Now, in March, we are gradually increasing the duration. These lights remain on their pedestals year round and cause very little disturbance to play. We removed them prior to the Nissan Open.

We also control putting green soil temperatures. We have below-ground thermostats under the greens that regulate the soil temperature through the winter months. If you never lived in Los Angeles, you would be very surprised just how cold the winters get. We had frost delays on the course at least a dozen times and the average morning temperatures throughout winter ranged in the 30's to 40's. The Turf Temp (trademark name of machine that controls our soil temperature) is usually turned on from November through March. It has below-ground coils (approximately 20 inches deep) that hold the soil temperature at around 60°. On a cold morning, you can actually see vapor rising from the greens. As you can see, we control the environment around our greens. We control the soil temperature, air circulation (both above and below ground), sunlight and irrigation. Nothing is left to chance.

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The greens can be watered at night by the Toro VT3 irrigation system; however, we do not believe in automatically running heads on the greens. All greens are hand-watered in the morning. Myself and a few others are trained, and in time you learn which areas need more water than others. By running heads at night, the entire green gets an equal amount of water and you find some areas overwatered and others under-watered. We do occasionally fertigate directly through the irrigation system with a 5-4-5. Use of the irrigation system also runs the risk of a head sticking on a green or a break near a green, which would be disastrous. Hand-watering and checking for wilt in the afternoons (visually and by probing the soil) is the only way to keep the right amount of moisture in the greens. Our basic goal is to spoon-feed the greens enough water each day to survive but keep the roots dry. By keeping as dry a root zone as possible, the risk of disease goes down and rooting depth increases as the plant searches for water.

The Riviera has a very active chemical program in place. Greens are sprayed four times a week, using a 300-gallon Chem Pro pulled with a Massey Ferguson turf tractor. Attached to the tank is an eight-nozzle boom hawk with 150 feet of retractable hose. We do not believe

in driving any vehicle over the greens due to compaction and surface damage as well as eliminating the risk of a hydraulic leak. Depending on the material sprayed, the boom is equipped with 8008 or 8004 teejet nozzles (1- or 2-gallon delivery rates). We calibrated the sprayer every month to assure accuracy.

We sprayed Monday through Thursday. The four basic categories of materials sprayed were foliar fertilizer, soil fertilizer, Greens-Relief products/Primer and fungicides. Foliar fertilizer is used to deliver nutrients directly to the turf. This is accomplished directly after they have been mowed and watered. We used the 1-gallon tips in order to spray a fine mist that sticks to the leaf surface. Included in the mix is a non-ionic spreader/sticker surfactant to increase the effectiveness of the spray. The spreader/sticker thins the spray out and gives a more even coating, rather than random droplets. Most foliar fertilizers are sprayed at 50 gallons per acre or less. The soil fertilizer is just the opposite. We want to deliver the fertilizer to the root zone, not the turf itself. In this case, we used a higher volume 2-gallon tip (8008) and watered in the spray directly after application. We also used the 2-gallon tips to spray our Greens-Relief products. These products consist of Bio A, Bio B, Plasma, and KCS. The primary purpose of these products is to strengthen the cell walls of the turf, making it more resilient and able to withstand traffic. Also they increase microbial activity, which reduces thatch build-up.

We spray fungicides on the greens once a week which tends to degrade the soil microbes, so Greens-Relief spray is used to counter that effect. Finally, we spray a combination of preventive fungicides once a week. We use a mix of Daconil Ultrex and Cleary's 3336. Both fungicides target brown patch, our primary disease problem. Additional fungicides are used on a curvative basis if disease occurred. We sprayed Subdue for Pythium and Heritage for take-all-patch. Due to member complaints, we used a drift retardant and a spray deodorant to reduce drift and the smell of the fungicide applications.

Routine cultural practices are necessary on all putting greens. We aerify, verticut, spike, quadra tine, deep tine, topdress, roll, and Hydro-Ject all the greens. Aerification of the greens is vital for thatch reduction, lessening compaction and amending the soil conditions. The plan is to aerify the greens three or four times a year. As a rule of thumb, it is not wise to aerify between November and February due to the cold temperatures and chance of frost.

Directly after the U.S. Senior Open in July, we aerified. We used a Ryan/Cushman walk-behind aerifier with 3/4-inch tines. We pull about 3-inch long cores. About six people followed behind with snow shovels cleaning up the cores and one person blew off the remaining material. Next, two people put down the soil amendments. Six different amendments were added to the soil: Replenish



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5-3-5 (organic poultry waste), Desert Greens (sea kelp), Ecolite (zeolite), black rock phosphate, Green Sand (soil conditioner), and 0-0-50. Amendments were applied using a Scotts rotary spreader. Finally, an army of about 15 people filled the holes. We filled the holes with a mix of sand and Profile. We mixed in 50% sand with 50% Profile and hand-shoveled the mixture onto the greens. Then the grueling process of brooming the sand/profile mixture into the holes began. Fifteen people lined up side-by-side at one end of the green and push-broomed the sand across the green, filling the holes. The amendments, which were already down on the green, also got broomed into the holes along with the sand/Profile. This process was completed in two days; we closed the front nine one day and the back nine the next.

Topdressing is a routine practice at the Riviera. We spiked the greens every Monday, followed by a light topdress. Once again, we topdressed with the Scotts rotary spreaders set wide open and throw wheel-to-wheel (versus broadcast to broadcast). Light, frequent topdressings are much preferred to the heavier applications because they do not disrupt the playability of the greens nor do they cause problems with the greens mowers the next day. Throughout the summer months, it is very common for isolated "hot spots" to occur on the greens

and for the greens to seal off. This occurs in part due to the organic layer drying out and forming a crusty seal that makes water infiltration through the profile difficult. Increased watering does not help because the water is getting sealed off and is not able to penetrate down through the mat layer. An aerification would be helpful but is not always possible. This is when we used the Toro Hydro-Ject. This machine attaches to the green side quick-coupler and injects a tiny blast of high-pressure water about 6 inches down into the green. This busts through the mat layer, allowing infiltration of water through the profile. More importantly, it does not disrupt the surface of the green. The green is able to be putted on immediately following.

TEE MANAGEMENT

The Riviera is 75 years old and, over that period, several tee boxes have been added or moved. There is very little consistency with regards to the tees. Most of the newer tees have a sandy loam base with Tifway 419 bermuda grass; however, we have several older tees (primarily the lady's tees) with a clay soil and Kikuya grass. During the summer, we mow the bermuda tees at 0.375 inch with the Jacobsen 22-inch walk mowers every other day. Around early November, the air and soil tempera-

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tures drop and the bermuda grass will start to lose its color. Before this happens, it is necessary to overseed with a cool season grass that is able to grow and retain color in the winter months. Common choices are ryegrass, bentgrass, or *Poa trivialis*. We chose ryegrass due to its cost and color. Ryegrass makes an excellent tee surface because it germinates fast. Most driving range tees across the country are ryegrass because they can grow grass fast and cheap. Another benefit I like is that since one side of the blade is shiny and the other dull, it stripes really nice and looks very appealing.

The overseeding process is relatively simple but must be taken seriously. Overseeding problems is the number one way superintendents lose their jobs in this part of the country. The first step we took on our tees was to drop the mowing height. We went down to 0.250 inch. The goal is to mow so low that you scalp the surface a little. Next we took a mat-a-way machine (a very aggressive verticutter) to remove as much thatch as we could. We verticut two directions per tee. It is important the ryegrass seed make contact with the soil. Too much thatch will lessen the germination rate. Once the tee box is prepared, it is important to make sure that only the tee box itself and not the tee slope is able to grow the ryegrass. We have Kikuya tee slopes and it would look terrible if ryegrass were to grow on the tee slopes. Kikuya has a natural light green color, while ryegrass has a much darker appearance. There are a number of precautions you can take to prevent ryegrass from growing on the tee slopes. Using a drop spreader along the edges can prevent seed from scattering or blowing on to the slopes, but ultimately golfers and mowers will drag some seed off the tee box onto the slopes. The only way to guarantee no ryegrass on the tee slopes is to apply a pre-

emergent herbicide on the tee slopes. You can use Barricade, Dimension, Team or any pre-emergent you wish. We used a liquid flowable pre-emergent and applied it using our fairway-riding SDI sprayer. We turned off the two side booms and, using only the middle boom, carefully drove around all the tee boxes outlining the tees with about 6 feet of coverage. More pre-emergents eliminate germination for 30 days or more. Next we spread the seed down wide open with the Scott's drop spreaders, followed by a starter fertilizer. Finally, a light layer of topdressing was applied to complete the seed bed. For the next week or two, we kept the tee moist, multi-manualing them at least once a day. Some tees required additional seed and starter, but overall we were very successful.

FAIRWAYS AND ROUGH MANAGEMENT

The Riviera is famous for its Kikuya fairways and rough. Kikuya grass was originally brought to Southern California from South Africa. Its only purpose was erosion control. Kikuya grass is a very aggressive grass. It has both stolons and rhizomes and can grow just about anywhere. Although a warm-season grass, it tolerates cold temperatures very well. It is extremely drought tolerant and does not need much sunlight. Most home lawns in the Los Angeles area have Kikuya due to its remarkable ability to handle drought and other stresses.

However, Kikuya is considered a noxious weed in the State of California so seed production and sale are prohibited. Kikuya provides an excellent golf fairway when properly managed. We mow our fairways at 0.390 inch; at this height, the grass is extremely rigid and tough. The ball sites up on this grass and people say it is like hitting a ball off a plastic driving range mat.

In the rough, we keep it mowed at 2 inches for member play. During the Senior Open, it was mowed at 4 inches and the world's top players were literally unable to advance the ball. Hale Irwin won the event by shooting even par. The grass is so tough and gnarly at that height that members were honestly breaking their wrists trying to advance the ball. Needless to say, we had to lower the height fast after the tournament.

Kikuya is very disease resistant. We have occasionally had some brown patch and fairy rings on some ladies' tees, but overall have had little disease. This is also due to the cool Pacific conditions. We have low humidity and cool nights, not good conditions for fungal pathogens. The major problem with Kikuya is scalping with the fairway units. The aggressive stolons often get "puffy" and the reels can rip or scalp the plant. We do a lot of topdressing in these areas and try to level and firm them.

We mow the fairways with the Cushman E-plex mowers. To my knowledge, we are the only course to mow all the fairways with electrical mowers. These mowers run off eight golf-cart size batteries. The reason for this is that we have an 8:00 PM noise ordinance we have to fol-

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low and gas or diesel fairway units would be too noisy. The E-plex mower was designed to mow greens, thus they can only hold a charge for a couple hours maximum. We use 10 of these units, each being able to mow about one and one-half fairways. We mow all roughs with Cushman AR 250 five deck rotary mowers.

SPECIAL TOURNAMENT PREPARATIONS AND GUIDELINES

Achieving tournament-caliber greens should be a year-round goal; however, there are certain practices that are used only in the weeks prior to tournament play. Most superintendents are asked to provide green speeds of 10 feet the week prior to tournaments. This speed allows the tour officials to make a final determination of the speed that can be obtained quite easily. Arbitrarily achieving higher green speeds should be avoided because this could eliminate prime hole positions for the tournament.

The USGA stimpmeter should be used to check the consistency of all greens. It is better to have the greens rolling a little slower and all equal than to have fast, inconsistent greens. The single most important task of the superintendent is to have consistent green speed. Most people think speed is most important, but without consistency speed does not matter. When I say consistent, I mean that every part of every green should play the same speed Thursday through Sunday. It is very common for the greens to dry out and become extremely fast into the weekend and on Sundays — this should be avoided. Firm, but not hard greens are the goal. This requires hand watering by very skilled personnel. This may also require hand watering during an event. Too much or too little irrigation will increase spike marks and lessen the skill required to hold a shot.

Other practices used were vertical mowing and grooming to reduce surface grain. We used regular push brooms prior to mowing to stand the turf up and reduce the grain. This can also be achieved with groomers on the mowers themselves. To slow down growth on the green, we reduced the amount of nitrogen we fed our

greens and we applied Primo once a week for a month prior to the tournament. We used Primo prior to the tournament to slow growth, but more importantly, to reduce the amount of seed heads on the *Poa*. *Poa* seed heads are rather unsightly on camera and some players claim their ball skids off line while rolling over them.

The previous year's hole locations have to be reviewed and avoided for 3 weeks prior to the tournament. We have alternate or temporary greens on some of our holes with smaller greens and the par threes. We use these alternates greens for the 3 weeks prior to the tournament. We make sure that all green side irrigation heads are at grade to prevent marking as "ground under repair" near putting surfaces. As a superintendent, you will drive around with the tour official and agronomist and wince as they mark "ground under repair" all over the course. The superintendent should strive for no such markings, especially green side, which will show up on television.

Have two skilled cup cutters trained. The evening before, a tour official marks with a white dot where he wants the pin. The cup cutter should have another trained individual to paint the hole-in-white. The hole-in-white is carefully painted so the television camera and the viewers can see the hole better. It is best to practice several times on the nursery because I have heard horror stories of unskilled painters letting the spray paint can loose and spraying the surface of the green. I did the hole-in-white on Sunday, and believe me, I was nervous. Repairing scalped or low plugs should be completed at least 2 weeks prior to the tournament. We have at Riviera the best cup cutter in the country according to Glenn Tate (a long-time tour official). He has been cutting cups for over 20 years. We never have low or scalped plugs so we did not have to worry.

As far as mowing heights, we gradually reduced our height from 0.125 to 0.100 inch or lower. Mr. Latshaw brought in his personal mechanic, a long-time head mechanic at Augusta National, to set up the mowers. A lot of the information as far as angle of attack is privy. He has been known to file down the bed knife so it is as thin as a razor blade. It is not uncommon at Augusta to break

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a bed knife while mowing. However, here at Riviera, we were only striving for 10 feet, so 0.100 inch was plenty short. Behind every mower is the stimpmeter guy. He is responsible for determining green speed and reporting conditions to Mr. Latshaw. In some cases, it was necessary to double cut the greens or roll them to increase the speed. Once again, consistency was the goal. Following mowing, the greens were whipped to break up any clippings that might be clumped on the greens.

Firm, level, closely mown teeing grounds are necessary for tournament play. We lowered the cut on our ryegrass tees to 0.250 inch. It is important to restrict play on the championship tees a month in advance of the tournament to ensure no divots. It is not enough to just move the tee markers of the championship tees or post signs as many members will tee off them anyway. We covered the tees with a plastic mesh netting, making it impossible to hit off of. This is especially important on the par threes and the mesh should be left on even during the tournament practice rounds. It is also recommended that the mowing patterns point toward the landing areas or greens. We used string to line up the mowing patterns and ensure perfectly straight lines. Then we burned in the stripes with repeated mowing.

We narrowed many of our fairways well in advance to provide tougher landing areas for the golf pro's. Prior to

the tournament, it is important to keep the fairways firm and dry. Firm, dry fairways eliminate a ball from plugging and give the ball a better chance of rolling into the rough, making the course more challenging. We kept the height of cut at 0.390 inch and mowed the fairways every morning and evening. The reason for the evening mowing was that in the event of a morning frost (which is possible in February), we would still have the fairways cut. The tour official does not allow straight line stripes from tee to green. Only cross cuts and angle cuts are allowed. This practice reduces surface grain and allows depressions to be mowed more cleanly. Any depressions, including sunken irrigation lines or drainage ditches, should be made to grade. Again, it is embarrassing to have white lines painted on the fairways as "ground under repair."

The height of cut on the rough is strictly up to the tour officials. One thing I found by working both a USGA and PGA event is that they have different philosophies on course conditions. The USGA, which hosts the U.S. Open and Ryder Cup, likes to make the courses play difficult. That is why you always see 4 or more inches of rough at the U.S. Open. During the U.S. Senior Open at the Riviera, they had us mowing the Kikuya rough at 4 inches and it was brutal for the players. For the Nissan Open (a PGA event), they had us cutting the rough 2 inches. Those 2 inches in the rough made all the difference in how the



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course played. The PGA, admittedly, likes to see birdies and eagles. Low scores are more fun to watch on television and are better for the game of golf — people tune in to see Tiger Woods shoot low scores, not struggle to get out of the rough. So, the PGA made us lower the rough to 2 inches, which provided little challenge to the players.

Although greens are the most important area of concern, the second most complaints about a tournament course relate to the conditions of the bunkers. At the Masters in Augusta, they replace all their sand every year. Most courses cannot afford to do that; however, adding new sand is recommended. One thing to remember is that the bunkers should be properly edged with an edger or with a reciprocal blade on a weed-eater prior to adding new sand. Once the new sand is added, you do not want to contaminate it by edging. Also, it is important to remove old sand if new sand is added.

The number one problem with most bunkers is too much sand. We spent more time making sure we had uniform and proper depths in our bunkers than anything else. Bunkers should have between 4 and 5 inches of firm sand throughout the bunker floor and no more than 2 inches on the faces. It is necessary to tamp or lightly water to ensure firmness. No ball should ever plug (fried egg) in a trap. These fried egg lies result from too much sand and sand that is not firm. Mechanical raking devices such as a Toro Sand Pro should never be used on a high end tournament golf course. The machine damages the bunker edges as it enters and leaves the traps and will drag sand unevenly toward the bottom of the bunker. Rather, all traps should be hand raked in the direction of play and constantly monitored for depth. In the week prior to a tournament, a tour official will go around to all bunkers and test them by throwing golf balls into them. You do not want to waste your time in that last week moving sand around, so it is best to get your bunkers in shape well before tournament week.

CONCLUDING REMARKS

The Nissan Open proved to be a great success. The greens were praised as the best they have been in years. Ted Tryba set the new course record at 10 under par. It is always good to have a tough, challenging course, but it is also a tribute to the conditions of the greens when a player shoots the course record. Ernie Els won the tournament at 13 under par. The PGA evaluations were excellent and, hopefully some day, the U.S. Open will return to Riviera. Once a tournament is over, the next few weeks are spent aerifying traffic areas, seeding traffic areas, cleaning debris and trying to restore the course to normal. Working for a major course during a tournament is very intense, hard work. We started work at 2:00 AM and did not finish until well past dark. Some individuals slept in the maintenance shop because it was not worth driving home. It is also an extremely rewarding

experience. Often in this profession, work goes unnoticed, so it is a real special experience to know the work you did will be seen by viewers nationwide. It is an incredible learning experience to have work evaluated by other superintendents and PGA agronomists. However, the greatest benefit of working a tournament is in meeting other people in the turf industry. I worked alongside and became friends with over 100 individuals who I am sure I will see at the GCSAA conference and throughout my career. After the Nissan Open, I met the superintendent at La Costa and volunteered for the Anderson Match Play tournament. I met an assistant at Pebble Beach and got to play that course last month. I also got to play Sherwood Country Club (site of Greg Norman's Shark Shootout). I am on a very competitive list of volunteers to work the 2000 U.S. Open at Pebble Beach. Most tournament courses will be more than willing to take on volunteers — I highly recommend that everyone take advantage of the opportunity.

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