

"The Insiders" Philip Armitage, Ben Allen, Neil Atkinson and Swede Patrik Benneryd spent time as Interns working on Pinehurst Number 2. Last month they told us about the overall experience while this month they give an insight into the background to last year's US Open preparations.

# American beauty part II

"The United States has to move very fast to even stand still" John F. Kennedy, 1963.



Above: The Carolina Hotel (or 'Queen of the South' as it is often renamed) is the main hotel at Pinehurst where guests stay

"Pinehurst No. 2 makes you think, it makes you play, it makes you drive the ball, it makes you position the ball. It's a player's dream. Donald Ross did a phenomenal job. It's the type of course I'd play every day of my life" – Greg Norman.

After the 1992 US Open at Pebble Beach, Pinehurst was awarded the 1999 US Open. The stipulation was that the USGA would work with Pinehurst to rebuild all 18 greens on No. 2. Pinehurst knew their existing Penncross greens were not of a high enough standard for a US Open,

given the heat of the Carolina summers. So they asked the USGA to help them find a newer, more heat tolerant variety of bentgrass.

With the huge success of the G-2 at Pinehurst No. 8, it was decided that this variety of bentgrass would be ideal for installing into the greens on No. 2. So, in 1996, Pinehurst rebuilt the greens on No. 2. In addition, several new tees were constructed to lengthen the course and dozens of trees were removed to provide space for grandstands and hospitality units.

Pinehurst became only the second golf resort to stage a US Open (after Pebble Beach) and this afforded them the luxury of utilising whatever room was required for corporate hospitality, TV compounds. Course No. 4 is located adjacent to No. 2 and so certain holes would have to be closed down to accommodate marquees, car parking and TV compounds.

ClubCorp, Pinehurst's ownership company, was faced with a challenge. How could it close down No. 4 to provide space for the US Open but

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Above: 8th Hole, Par 4 (for Professionals), Course No. 2. Normally a straightforward Par 5 for guests/members, this has turned into a Par 4 for the US Open.

still utilise the remainder of No. 4 productively? They decided to completely rebuild No. 4! So, in early 1999, construction began on a Tom Fazio designed, new Course 4.

Since it acquired the resort back in 1984, ClubCorp has instigated many changes at Pinehurst including the openings of No. 7 (1987) and No. 8 (1996). No. 4 is another chapter in its portfolio and reflects in the company's ongoing commitment to golf course improvements.



Above: 13th Hole, Par 4, Course No. 2.



Above: 3rd Hole, Par 4, Course No. 2. Show bermuda grass in various stages from white (still dormant) to green (actively functioning as a plant)

Significant progress was made in constructing and grassing most of the new holes before the US Open in June. The areas that were used for marquees were left untouched until after the tournament. Then construction recommenced on those holes up to its completion in October 1999. No. 4 re-opened in December 1999 to rave reviews.

Paul Jett CGCS, Superintendent of No. 2, was responsible for the preparation of the golf course for the US Open. He is perhaps the only Golf Course Superintendent who has had to raise the green heights in preparation for a major tournament!

The USGA felt that for the tournament, the greens should be rolling at about 10.6 and so Paul decided to raise the heights to 3mm and have them double-cut. The USGA worked with Paul to ensure that at the start of each day's play, the greens were rolling at 10.6. Green speeds were actually checked before any mowing commenced.

For those who are unfamiliar with the greens on No. 2, imagine 18 greens shaped like upturned saucers. The greens are similar to USGA spec. and are normally maintained to a height of 2.7mm which generate green speeds of around 9.5. The greens average around 6,000 square feet in size.

Course 2 has a history of having hard, fast greens. To maintain healthy, fast greens, Paul's philosophy is to control the water supply to the greens. Overwatering causes lack of oxygen, contributes to thatch build-up and encourages disease. Although minimal watering can cause problems in hot, windy weather, Paul would rather his staff syringe the hot-spots on the greens only when necessary. He also likes to stress the bentgrass in hot weather to increase their heat tolerance. In addition, regular verticutting and topdressing assist in keeping the greens firm.

Paul's fertiliser programme in the build up to the US Open was no different than any other year. In the month leading up to the tournament, he applied Nitrogen at

about a tenth of a pound per week and Potassium applications at around a fifth of a pound per week. (Paul was so satisfied with the greens that they were probably fourth priority in the build-up to the tournament!). The greens received just over 6lb N/1000 sq.ft for 1999.

The inclement weather slowed the greens down substantially during the tournament and as a result, greens were double cut morning and evening. (On one day, the 30,000 sq.ft putting green was cut 14 times to bring it up to the speed demanded by the USGA!) The USGA demanded faster greens for the Sunday. To dry them out, a vacuum pump was connected to the drainage system of the greens in order to remove excess water from the top few inches of the soil profile.

Fairways were narrowed to 28-30 yards in width and were mowed daily at 9mm. They were also cut in one direction, from green to tee, in an attempt to control long driving. Tees, approaches and surrounds were also mowed at 9mm but twice daily. It was refreshing to see tight surrounds instead of thick rough just off the greens – the normal tradition for US Opens. Rough was mowed daily at 3 inches at the USGA's behest.

Despite the rain, only Payne Stewart managed a sub par total of 279 (-1). One shudders to think of the winning score if the weather had been hot and windy. The success of the tournament has resulted in Pinehurst being awarded the 2005 US Open – a fine tribute to Pinehurst and to Donald Ross' masterpiece.

Paul's disease programme is done on a preventative basis and only during times when conditions are favourable for pathogens. Paul sprays to control a broad spectrum of diseases and never uses the same product two weeks in succession. G-2 is highly resistant to disease too and thus Pinehurst doesn't have many major problems with diseases. Paul also sprayed the Bermuda with Carbaryl the week before the tournament which killed off white grub larvae that were present



Above: 15th Hole, Par 3, Course No. 2. From Camera tower (Note that only aesthetics come from the green – creeping bentgrass. Bermuda grass being a rigid, upright growing plant, does not produce the great aesthetics that many people associate with U.S. courses.



Right: 15th Hole, behind Par 3, Course No. 2. Shows severity of slope-offs on greens of No. 2. This taken at eye level with green surface!

in the turf.

It has been documented in some Greenkeeper International articles that many American courses are intensively manicured and offer 'lush, green fairways', Augusta National GC being the most commonly used example. Have that many people been fortunate enough to play the 'lush' fairways of Augusta? Or are these assumptions made after four days of watching the Masters on TV? Anyone who believes that a US Superintendent prefers to maintain a lush, dense sward (rather than a tight, fine sward) is merely a fool.

Many American courses do require intensive maintenance but the Superintendent is, more often than not, given the budget in which to do so. This is because the demands from the US golfing public are much higher and climatic differences lead to more intensive maintenance of the golf course. But perhaps most importantly, the memberships/ownership companies of US golf courses realise that the golf course cannot be maintained to the highest standard on a shoestring budget (accounting for the aforementioned variables).

Pinehurst has bermudagrass tees, fairways and rough. For those unfamiliar with the bermudagrass growth cycle, it goes into dormancy during the autumn-winter transition and then re-emerges the following spring. This is because the lower winter temperatures are not warm enough for bermuda growth. The lack of chlorophyll production results in the plant turning white but still provides a good playing surface. In recent years, Pinehurst has

overseeded its courses with perennial ryegrass in the autumn. This is purely for aesthetics ie to provide a 'green' appearance year-round.

The recent introduction of new dwarf ryegrass cultivars are now commonplace in the USA. They not only have a fine leaf blade but also offer superb aesthetics. Overseeding is done in October after the courses have been verticut (to create a seed-bed for the ryegrass seed) and it has led to intensive course management year-round for Pinehurst Superintendents.

Here are several points of interest about Pinehurst in relation to overseeding (that results in a darker green, not lush, golf course):

- **The underlying soils are as sandy and free-draining as most links courses**
- **Dwarf ryegrass cultivars are now used which produce fine, tight swards**
- **Superintendents must irrigate regularly to prevent rye grass wilt, as Carolina's winter temperatures can still exceed 75 degrees**
- **The decision to overseed is from Corporate management. The Superintendents have no choice in the matter**
- **It is assumed that guests prefer to play on a green golf course**
- **Guests at Pinehurst pay between \$140 - \$250/round, depending upon which course they play. It is not unreasonable for these guests to expect a well conditioned golf course for these prices.**

The USA is the world leader in turfgrass research and development, having given us Pennncross, Providence, dwarf Bermuda & Ryegrasses among many other products. Last year, Michigan State University announced its trials of poa annua cultivar development. Food for thought for the BIGGA Turf Managers' fraternity!

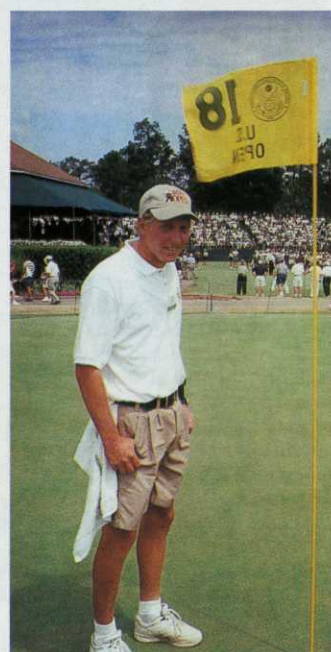
Perhaps younger readers may be thinking about enrolling in the OSU Program. Our advice is to go for it! In addition to performing a wide range of turf management practices, you'll also be able to attend the Florida Short-Course. This is a weekend of turfgrass seminars, hosted by OSU Professors, where you'll learn about pests and diseases, warm & cool season grasses etc.

Travelling the USA is fantastic too, with a whole variety of sightseeing and activities on offer. Interns have the opportunity to travel after the expiration of their visa. Watch a Broadway show in New York, sing the blues in Memphis, enjoy Mardi-Gras in New Orleans or marvel at New England's autumn colours. The choices are endless.

America is not a perfect utopia but it is a great country that is full of opportunities. Go try it for yourself – you may be pleasantly surprised!

Our sincere thanks to the Ohio State Intern Program 'team' for the opportunity to participate in this unique program, to Brad Kocher CGCS, Director of Golf Course Maintenance at Pinehurst for continuing to support the OSU Interns, to all our Superintendents we worked with in the USA: Joe

Alonzi CGCS, Brian Clodfelter, Jeff Hill CGCS, Paul Jett CGCS, Scott Kinnan and Fred Klauk Jr. Best of luck to the OSU Interns at Pebble Beach for the 2000 US Open. Finally, we'd like to thank the many other friends we made in the USA – someday we hope to return to see y'all!



Above: Patrik Benneryd, Pinehurst No. 2, 18th Hole. Just finished setting up.