

In 1998, three Englishmen, Philip Armitage, Ben Allen and Neil Atkinson, and one Swede, Patrik Benneryd, enrolled in the Ohio State University International Agricultural Intern Program. Philip, Ben and Neil knew each other from their Reaseheath College days, where they did the HND course. Patrik soon became a great friend to them. This is a recollection of their experiences working in the US turfgrass industry, where they were all fortunate to be placed at Pinehurst Resort & Country Club, North Carolina...

American beauty

"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

We all went to the USA in 1998, participating in the Ohio Agricultural Intern Program, set up some years ago by Michael Chrisman and Michael O'Keeffe. The program is dedicated to providing a US Golf Course Superintendent with an intern who has some degree of turfgrass education and work experience.

The program gives interns the opportunity to experience different approaches to turf management and different work ethics. It also gives interns the opportunity to experience a new culture and lifestyle. It is a

whole new challenge. Interns enter the USA on a J-1 'Trainee' visa which permits a maximum stay of 18 months. There are two choices of program; A (practical training & classroom study) or B (practical training only). Most interns, like us, opted for program B.

An intern is simply a student. The most famous intern, or infamous, of recent history is Monica Lewinsky, the girl who got Bill Clinton into a bit of trouble with Hillary (but our Superintendents did NOT expect any favours of that kind).

Mike O'Keeffe has some fantastic golf courses and resorts where interns can be placed. Pine Valley, Augusta, Westchester CC and Sahalee have all had OSU interns. But don't be under the impression that a famous golfing venue will necessarily provide a better internship than XYZ Country Club in Nowheresville.

Wherever an intern is placed, they have the opportunity to learn. You get out of the internship what you put in. Most importantly, having completed an internship in the USA, it shows a future employer that you



Above: A panoramic shot of the 9th hole on Pinehurst #8 looking from the green back down the fairway (Par 4 hole)
Right: Another shot of the 9th hole on Pinehurst #8 showing a deeper green colour, due to overseeding the golf course with Perennial Ryegrass

have shown initiative and a dedication to improving yourself and your career, and that you were prepared to do it some 3500+ miles from home.

Generally, Mike O'Keeffe will ask you what sort of grasses you want to work with; cool or warm season grasses. We all opted for cool season because we thought it would be useful for us to work with grasses that we might have to encounter upon returning to our respective home-lands, both cool season grass climates.

We were placed at Pinehurst, North Carolina, which is in the transition zone in the USA. This is where the climate allows for the growth of both warm season (e.g. Bermuda) and cool season (e.g. creeping bent) grasses.

Pinehurst lives and breathes golf. It already has 144 holes of golf (eight courses) and more are expected to follow in the future. No community on earth, even St. Andrews, is more obsessed with golf than Pinehurst.

The village has a population of about 7000 and not a day goes by

without seeing a golf buggy driving down one of the village's main roads. The courses are a mixture of old and new. The most famous is the #2 course, the Donald Ross masterpiece and host to the 1999 US Open. However, the other courses each offer a good challenge to all types of golfer.

Upon our arrival at Pinehurst, we were all surprised to find out that, after the Superintendent, Assistant Superintendent and Second Assistant, the OSU interns were the only other crew members who had completed some form of greenkeeper training. In the USA, education is very expensive. Day release greenkeeper education does not exist - period. If you want turf management education, you have to go to a university and enrol in a full-time course (either a two or four year degree). Tuition fees alone for these courses can total \$2000+/year!

Hence the reason why there is a huge demand in the USA for qualified turf management personnel, regardless of age.

We all noticed that US students, upon graduating from university, could immediately find an Assistant Superintendent position as their first full-time job. We observed it first-hand, and some of them had less experience than ourselves! Some UK greenkeepers may regard this as a risky approach, placing so much responsibility upon young shoulders.

But the management philosophies are very different in the USA from the UK. The Superintendent is generally responsible for long term planning and decision making while their Assistant will co-ordinate the day-to-day management of the golf course. This gives Assistants some degree of responsibility but it allows them to learn from their mistakes in

the capacity of an Assistant so when they move up to a Superintendent's position, they will have acquired a good range of managerial skills in order to cope confidently with a Superintendent's position.

Given that we'd all had greenkeeper training, our Superintendents looked to us to perform a wide range of tasks including course set-up, mowing, aeration, spraying, irrigation work, overseeding and syringing greens (the latter two will be discussed later). As interns, we were seen as people who could show initiative, adapt to different situations, lead by example and also to try to encourage the regular greens staff to do their best.

The Carolina weather was a welcome change to the notorious British weather. The summers of both 1998 and 1999 were two of the hottest in living memory in North Carolina! We were all alien to temperatures exceeding 90 degrees F and the additional humidity levels. Still, we couldn't really complain! We can all remember wearing shorts in December '98 while sitting on a mower etc.!

The 1990s saw Pinehurst introduce a new cultivar of Creeping Bentgrass into its greens. Penn G-2 was first introduced to Course #8, which opened in 1996 to mark the resort's Centennial. G-2 was developed at Penn State University and it adapts well to hot, humid climates. Its high heat tolerance makes it ideal for use in the Carolina climate. G-2 has a shoot density that is around 2.5 times greater than Penncross and it is also extremely disease resistant.

The superb initial response to G-2 at #8 has resulted in Courses 1, 2, 4 and 5 converting to G-2 from Penncross. This trend is expected to continue at Pinehurst in the future.

Below: L-R: Ben Allen, Neil Atkinson, Phil Armitage





G-2 is an extremely high maintenance cultivar which demands regular, low mowing. Its optimum height of cut is below 1/8" (and it should be maintained below that year round. The greens are usually aerated monthly, using a combination of the Hydroject and, followed by, a light verticut. They are then given a light topdressing. This regular regime ensures that the greens remain firm and thatch build-up is minimised. The result is a very true surface which is arguably the finest putting surface to date.

However, G-2 does have its weaknesses. Its recovery from mechanical operations (such as scarifying) is quite poor, although we rarely encountered golfers who mentioned that aeration scars affected the playability of the greens.

Playability seems to be the most important factor at Pinehurst and is probably why the Hydroject has been used much more for deep aeration in the last few years at Pinehurst. Not only does it promote deep rooting, its minimal surface interruption allows the greens to be brought back into play almost immediately - a huge benefit to a resort like Pinehurst. The greens are also subjected to three or four major aeration operations a year. Hollow coring is scheduled for June/July, while scarifying is done in Spring and Autumn.

Although G-2 has a higher heat tolerance than Pennncross, the other cultivar used at Pinehurst, it can only withstand certain temperatures before it also starts to suffer from heat stress, or wilt.

Wilt usually occurs during periods of high temperatures and sunlight, low humidity and particularly on hot, windy days. Syringing is the method used to counteract wilt. Basically, the greens are cooled/misted with water from a hose. The idea is that any moisture loss from the plant will be, in effect, what you have misted onto the green. It is a task with which we all became familiar and although

repetitive at times, it does provide you with the luxury of cooling yourself off during those hot Carolina afternoons!

The golf & tennis villas is where all Pinehurst interns were housed and they proved sufficient for our needs. We basically had a hotel-type room each. They were furnished with a bed, shower, cable TV, refrigerator and air conditioning. Conveniently located

near work, the villas provided a nice refuge where we could relax after a long day in the sun. We would often go out to eat to a local diner and then retire to one of our rooms and relax with a cold beer, wishing that we could watch Match of the Day instead of Major League Baseball!

Next month, we will recount our experiences of the 1999 US Open, hosted on Pinehurst #2.

Below: Early photo of the 6th hole (par 3) on newly constructed Pinehurst #4, a Tom Fazio design. Construction began in early 1999, and play commenced on December 10, 1999

