

Course Feature

Chance of a Lifetime

The Ohio State University Turfgrass Intern Programme, has brought together seven interns from the UK for hands-on training at The Pinehurst Resort, North Carolina.

Robert Lucas - Course 3, Niall MacDonal & Tom Freeman - Course 4, Craig Hay - Course 5, Jaime Smith - Course 6, Stephen Brogan - Course 7, Neil Kennedy - Course 8 give you an idea of what life is like on an internship at Pinehurst.



Left to right. Back: Thomas Freeman, James Smith, Neil Kennedy, Stephen Brogan. Front: Niall Macdonald, Craig Hay, Robert Lucas

The aim is to equip the interns with the skills, experience and knowledge they need to succeed in the Turfgrass Maintenance Industry worldwide. The programme is also a great opportunity to have fun, learn, and make contacts with people who can extend your support network, both professionally and personally, from around the world.

Our visa allows us to undertake work based practical training for 12 months with the option of extending for another six months.

Accommodation is arranged by Pinehurst Resort and we live together in the same apartment complex, only five miles from the golf courses. There's lots to do when not at the course. We are all really keen golfers and spend most of our spare time playing. As Pinehurst employees, we get free use of the golf courses and practice facilities - the only cost is \$5 for a golf cart.

The hours we do and the amount of overtime varies throughout the year. During spring, summer and autumn we start at 6am and finish at 3pm, Monday - Friday. During winter we start at 7am. Weekend duty is compulsory and, although you are only asked to be on duty every other weekend, most interns go in every weekend for the experience. We do a lot of overtime during the summer months, it's not physical work but it is very responsible and an important duty - "wilt watching" and syringing greens (more later).

Interns are trusted with a lot of responsibility because we have all been to college and have a qualification. We also use machinery and equipment that we had never used before and carry out topdressing, aeration,

irrigation, spraying fungicide, herbicides, to insecticides and fertiliser.

The Pinehurst Resort is the largest golf resort in the US, with eight golf courses and three hotels. In 1900 Donald Ross came to Pinehurst and stayed for 48 years, during which time he re-designed course 1; was the architect for the world famous course 2, which opened in 1907, and Course 3 which opened in 1910. Course 5 was designed by Ellis Maples in 1961. Courses 4, 6 & 8 were the work of Tom Fazio. Course 7 was designed by Reese Jones in 1986.

Pinehurst has mild winters, allowing for a long golfing season so golfers from the northeastern states use it as a winter retreat. It is on sandy soil which provides great drainage all year round.

In 2005 it hosted the US Open Championship won by Michael Campbell with a score of even par.

The climate of North Carolina is mild winters and very hot summers which means Pinehurst is in a transition zone. They use warm season turfgrass during the summer months and cool season turfgrass during the winter months, which is a great experience for us to be exposed to from a management perspective.

PINEHURST THROUGH THE SEASONS

SUMMER

Summer temperatures frequently hit 40°C so bermudagrass (*Cynodon dactylon*) is used as the warm season turfgrass. A hybrid bermudagrass called Tifway 419 is used because it has a finer leaf blade, produces a tight sward and is more drought and shade tolerant than common bermudagrass, it grows on the tees, fairways, roughs, collars, and approaches.

We started to notice "green-up" and recovery of bermudagrass in late February when night temperatures remain above 15°C for several days, soil temperature also needs to reach 18°C at the 10cm depth. By the last week in June 99% of the ryegrass had wilted out of the golf courses.

The greens are cut everyday during the summer, the other areas such as fairways, rough, tees, collars and approaches are cut every other day.

The greens at Pinehurst are seeded with Penn G-2 creeping bentgrass (*Agrostis stolonifera*) because it provides a high quality putting surface and year round colour. We cut the greens very low - 3.1mm is the usual cut height.

G-2 is a very heat tolerant cool season turfgrass so is able to tolerate the high summer temperatures, but only if a lot of effort is made to cool the greens by syringing to replace lost water from the leaf and reduce the temperature of the canopy.

We are given the responsibility of syringing the greens, which involves hand watering areas of the greens that begin to wilt. These areas are called 'hot spots' and are syringed over and over all afternoon usually from

12 noon to 5pm. A very small amount of water is applied each time, just enough to replace moisture lost from the leaf. The idea is not to water the soil as this forces oxygen out of the soil creating anaerobic soil, root loss and, eventually, algae problems. We are sent out to syringe most afternoons during summer.

The warmest month is July, the average high temperature is 32°C, and the average low temperature is 21°C

July is also the wettest month average rainfall is 129mm.

AUTUMN

The courses are aerated in September, the greens are hollow cored and top-dressed. Fairways, tees, collars, rough and approaches are heavily verticut which removes thatch and creates a seed bed for the ryegrass overseeding.

During autumn the temperatures start to cool down so the growth of the bermudagrass slows down, as the temperatures get colder and frosts it will eventually go dormant. Dormant bermudagrass has lost all its chlorophyll from its leaves so is brown in colour; it requires warm air and soil temperatures and strong sunlight for its photosynthetic processes.



The Proshop at Pinehurst

Before the bermudagrass goes dormant the turf is overseeded with perennial ryegrass (*Lolium Perenne*). This happens the first week of October so by the time it is dormant the ryegrass will have germinated and the plants will be mature enough to provide a quality playing surface. All areas are overseeded, apart from the greens which are kept creeping bent grass (*Agrostis stolonifera*) year round. The growth of the grass slows down at this time of year, the greens are cut daily, fairways, collars, tees and approaches are cut three times per week and the rough is cut twice per week. The average high temperature in October is 22°C The average low temperature in October is 10°C The average rainfall in October is 95mm - ideal weather for golf but just remember, during aeration and overseeding the courses are closed for 2-3 days so we can get the work done as fast as possible. Closing eight courses for 2-3 days for both processes, leads to a big loss of greens fees so this is where you learn about efficiency and scheduling and organisation in a grand scale, because "time is money!"

WINTER

During winter temperatures can still reach 20°C, so irrigation is still used to prevent ryegrass wilt. It does get really cold at times if the wind is coming from the North or East it brings some really cold temperatures.

We noticed a big difference in morning and afternoon temperatures at Pinehurst, it's something we've never experienced in the UK, there was days when we would start at 7am and the temperature was -1°C with a hard frost on the ground but by lunchtime the temperature would be 18°C.

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Course Feature



The coldest month is January, average high is 10°C; average low temperature is -1°C and average rainfall is 117mm.

The grass grows more during the winter than it does in the UK, sometimes it's mild and sometimes it's freezing. If it is mild, the greens are cut every day, fairways, tees, collars, approaches and rough 1-2 times per week.

During the winter we are on a shorter schedule, therefore, most interns take the opportunity to spend some hard earned money on vacation; Mexico, Florida, California and New York are places we have visited.

SPRING

The ryegrass is growing fast so fairways, roughs, collars, tees and approaches are cut every other day. Greens are cut everyday.

The average high temperature is 22°C; the average low temperature is 9°C and the average rainfall is 81mm.

During May the courses are aerated, the greens, tees and collars are hollow cored and topdressed, the fairways and rough are aerated with spoon tines.

Spring is a time when the bermudagrass breaks its dormancy and starts growing again, at this time the two grasses are competing against each other for root space, water, nutrients and sunlight. The objective is to remove the ryegrass to allow full bermudagrass recovery.

The ideal situation is for the ryegrass to wilt and die as the two grasses don't blend well with each other as bentgrass and fescue do, ryegrass is a lot darker green than bermudagrass so stands out like a sore thumb.

Optimum daytime temperatures for ryegrass growth is 15 - 24°C, temperatures which are warm enough for bermudagrass, these temperatures can be experienced until the end of May at Pinehurst, therefore at this time the bermudagrass can't out compete the ryegrass without help.

STEPS TO ENSURE DESIRABLE SPRING TRANSITION:

1. Overseeding Rate

High seeding rates are used at Pinehurst, which is expensive but tends to keep the overseeded grass more juvenile due to competition so makes transition easier in spring.

Lower seeding rates often result in more mature plants, which are less susceptible to heat and moisture stress so remain into summer.

Fairways - 625kg/hectare; Roughs - 225kg/hectare;
Tees - 850kg/hectare; Collars - 625kg/hectare;
Approaches - 625kg/hectare.

If your wondering about how much seed this takes, picture 15 Artic trucks full of seed!

2. Fertilisation

Nitrogen, Potassium and Phosphorous are applied in early Spring, for conditioning of ryegrass, the first fertiliser application is after any danger of a severe frost has passed but before complete recovery of bermudagrass. Nitrogen is applied after 20 to 30% green up of bermudagrass. Rates of Nitrogen are kept to a minimum while temperature still favors the ryegrass. When temperatures rise to favor Bermudagrass, Nitrogen is applied in May and June or until bermudagrass has completely recovered, for its conditioning. Potassium is applied to increase carbohydrate storage in stolons and rhizomes, and promotes root development in spring and autumn. Iron is applied as deficiencies are noticed in early spring when soil temperatures are low.

3. Mowing Heights

Low heights of cut are used to weaken the ryegrass, which reduces the shading and competition effect on the bermudagrass. Fairways - 12mm; Roughs - 25mm; Tees - 10mm; Collars - 7.6mm; Approaches - 12mm.

4. Herbicides

Selective herbicides which kill cool season grasses but don't harm warm season grasses are sprayed. Bermudagrass needs at least 100 days of growth in the absence of ryegrass competition, failure to do this will cause loss of Bermudagrass and the sward will become thin over time. If it looks like bermudagrass will not get its 100 days before overseeding in autumn, the Superintendent will decide to remove the ryegrass with a herbicide, using Monument (trifloxysulfuron) from the sulfonylurea herbicide family.

NAME	AGE	COLLEGE & QUALIFICATION	PREVIOUS GOLF COURSE
ROBERT LUCAS	25	REASEHEATH COLLEGE NATIONAL DIPLOMA HORTICULTURE & SPORTSTURF	STOCKPORT GOLF CLUB CHESHIRE ENGLAND
CRAIG HAY	20	ELMWOOD COLLEGE SVQ LEVEL 2	ST ANDREWS BAY FIFE SCOTLAND
TOM FREEMAN	22	LACKHAM COLLEGE NVQ LEVEL 2&3	BOWOOD GOLF CLUB, WILTSHIRE ENGLAND
JAIME SMITH	20	HARTPURY COLLEGE NVQ LEVEL 2	HILTON PUCKRUP HALL GOLF CLUB ENGLAND
NEILL KENNEDY	23	OATRIDGE COLLEGE SVQ LEVEL 2&3	ARCHERFIELD GOLF CLUB EAST LOTHIAN SCOTLAND
NAILL MACDONALD	25	GOSTA TRAINING AGENCY SVQ LEVEL 2&3	DRUMPELIER GOLF CLUB, NORTH LANARKSHIRE SCOTLAND
STEPHEN BROGAN	22	GOSTA TRAINING AGENCY SVQ LEVEL 2&3	HAYSTON GOLF CLUB KIRKINTILLOCH, GLASGOW, SCOTLAND

5. Skipping Overseeding

This allows an early green up and a strong sward in summer, no competition between ryegrass and bermudagrass. Course 2 skipped overseeding in autumn 2004 so the condition of the bermudagrass would be excellent for the US Open in 2005.

Being part of the programme has influenced our lives and careers in a very positive way.

It feels like a big change, but also a challenge and we found that it's important to stay enthusiastic, Pinehurst has an influence on our ability to react positively to change and challenge, which has made us better greenkeepers, better golfers and better people.

It's great being part of a programme and part of a team of British interns, we all chose to participate for similar reasons so have lots in common but it has brought out the best in each of us and made us better team players. While we are thousands of miles from home on a safe, legal and organised programme, it's important to have a sense of adventure and an adventurous spirit.

As a result, it builds our confidence to go anywhere. We now know what to expect and we are not afraid to apply to top courses anywhere in the world - number one because, they are very familiar with The Ohio Programme and number two, they know that we will have learned a lot by the time we finish the course. Therefore, young people who do the American programme tend to be more in demand.

We would like to thank our lecturers back in the UK for supporting us in our endeavours, we will take away many great memories of Pinehurst, lots of contacts and life long friends in this great profession. It has been a great learning experience. Thanks also to our Superintendents and the team at The Ohio State University.

WHAT IS THE OHIO PROGRAMME

Run by The Ohio State University since 1979, the programme brings 19-29 -year -old single guys and girls for 12 to 18 months to train/gain experience on some of the most exclusive golf courses in the United States. You have to be drug free with no criminal record, have a clean drivers licence and most importantly a willingness to learn and ability to endure long hours of on-the-job training. Irishman Mike O'Keeffe manages the programme and brings in over 100 turf trainees a year from all over the world.

For more details on The Ohio Programme (www.top.osu.edu) contact Mike O'Keeffe on: okeeffe.1@osu.edu or your local SVQ or NVQ training authority.

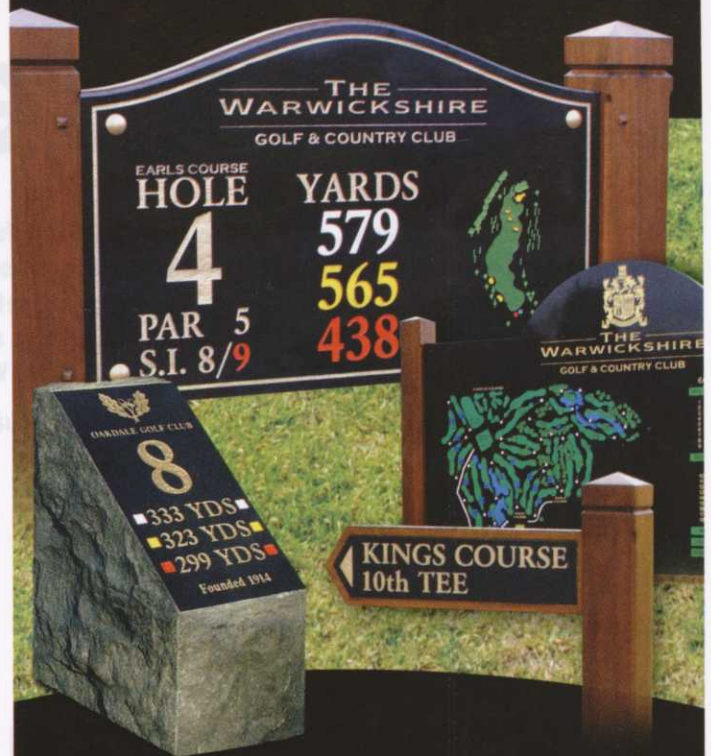


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