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Chris Knowles, Assistant Greenkeeper for Forest of Arden Golf and Country Club, reports on his impressions of the Double Eagle Club in Columbus, Ohio

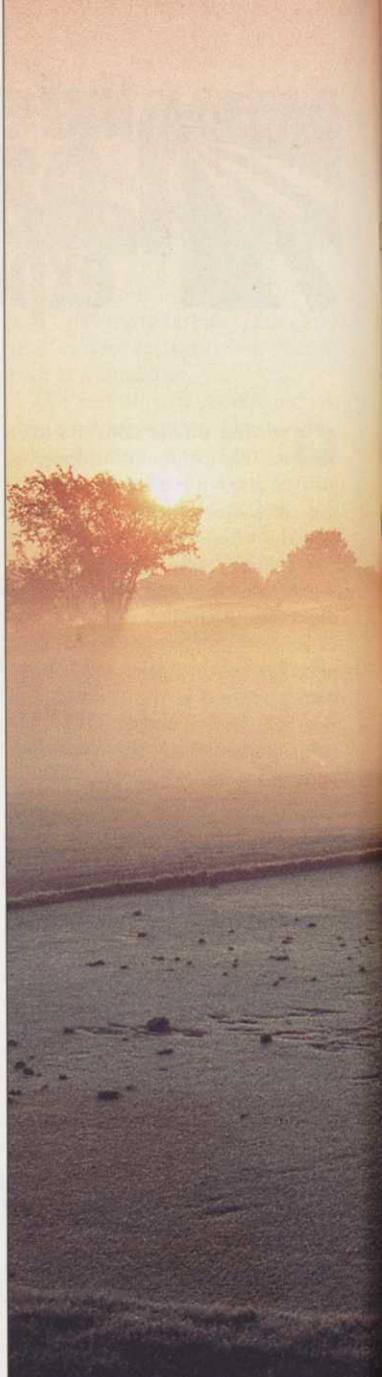
After graduating from Myerscough College in April 1995, with a BTEC National Diploma in Turf Science and Sports Ground Management, I was given the opportunity to participate in the Ohio State University's "Agriculture and Horticulture Intern Programme". Through the established relationship between Myerscough and the Ohio State University I undertook an eight month placement at the Double Eagle Club, Columbus, Ohio.

The Double Eagle Club is 25 miles north of the city of Columbus in an area called Galena. The golf course is quite a secret, with no signs indicating its presence, many local people are unlikely to be aware of it. Membership is very exclusive with 50 local members, 98 non local and only about 4800 rounds of golf are played each year. Membership is by personal invitation of the Double Eagle Club's sole owner, a very successful local business man, Mr John H McConnell.

McConnell purchased the land for the course eight years before construction began. During that time many meetings were held with the two designers, Tom Weiskopf and Jay Morrish, to determine how to create a truly top class golf course with the land that was available. The eight years deliberation and design certainly paid off, for between them, Weiskopf and Morrish came up with a masterpiece that certainly ranks up there with the Augustas and Pebble Beaches of this world. Construction began in 1990.

Double Eagle Club has an 18 hole golf course, a Bye Hole for settling ties, a driving range with Bent grass tees and target greens and a putting green outside a magnificent clubhouse. The course is truly spectacular and has characteristics of both park land and links.

The Course Superintendent is Terry Buchen, certified golf Course Superintendent and BIGGA Master Greenkeeper. Buchen has grown-in 11 new courses in the US and has worked with people such as Tom Fazio, Tom Weiskopf, Pete Dye and Jack Nicklaus. Buchen, who is a Pennsylvania State graduate, is also a committee member for the USGA and former PGA Tour agronomist. He also writes articles for several golfing and greenkeeping magazines and can often be found giv-



A hide

ing turf related talks at many venues. In 1990 Buchen was approached by McConnell and was asked to take a look at the site. He liked what he saw and stayed to oversee the construction and the grow in, and subsequently became Superintendent of the club.

It is due to Buchen's unquestionable knowledge and experience and through the hard work and dedication of his well educated and trained greenkeeping crew that, in 1994, the Double Eagle Club was voted, by Golf Digest Magazine, 2nd best conditioned golf course in the States



Practice tee at the Double Eagle Picture by Brian Morgan

en American treasure

after Augusta. In 1995 Double Eagle was ranked 44th in the States and 72nd World wide. These accolades are very impressive for a course that has only just finished its fourth season and is still little publicised. It is not hard to see why these accolades were presented.

- The greens are all Penn Links Creeping Bent grass and hand mowed daily with Toro 1000's at anywhere from 5/32" – 1/8", depending on firmness and moisture levels, usually double cut daily during normal summers.

- Tees are all Penn Cross Creeping Bent except for the 7th cham-

pionship tee which is Penn Cross oversown with *Poa trivialis* as the tee is in a very shaded area. The tees are cut at 5/32" almost daily.

- Fairways are all Penn trio and are cut at 3/8" with the Toro 5300, – 4 wheel drive.

- The rough is a mixture of Kentucky Bluegrass (smooth stalked meadow grass) or Rye grass and chewings Fescue.

The deep rough, or "Native" as they like it to be called, is very much encouraged to grow wildly as it consists of Tall Fescue, Timothy and Foxtails. Wild flower mixes are also incorporated into the Native which is very benefi-

cial to the local ecosystem and really enhances the aesthetic value of the whole course. The only drawback is that the "Native" is certainly lost ball territory!

There are 83 sand bunkers on the course and they must be among the best maintained anywhere. The bunkers are raked daily and edge trimming is carried out at least once a week using a strimmer held in an upside down position. I found this method to be most effective in creating a very tidy edge if done properly.

The hole positions on each

green were changed daily by the greenkeepers. A systematic approach was adopted in this operation in that the greenkeepers were provided with a scaled plan and chart which shows, on each green, nine viable locations for the flag stick. Consequently it is a full nine days before a flag position is repeated. This gives the new plug and old hole time to bind and of course provides players with variations in pin positions. Caddies also have copies of the charts and can advise the golfer of the daily hole position at each green.

Divots on all tees are repaired

A hidden American treasure

daily with a Penn Cross seed and rootzone mix of 85% sand, 15% sphagnum moss.

Buchen operated an effective management control system through providing all the green-keeping staff with Motorola radios and speaker "mikes". This enabled immediate two-way contact between Buchen and staff and through previous time and motion studies it was demonstrated that 1/hour/man/day would be saved. I am sure that everyone knows how time consuming and frustrating it can be to locate a member of staff somewhere on the golf course. While, as yet, Buchen cannot control the elements he is certainly up to speed in the technology of weather forecasting. Using an 18" satellite dish Double Eagle is in communication with the national weather satellite and using "Golf Links" software has up-to-the minute weather charts displayed on the office monitor. This obviously assists in the planning of the work programmes for the

OPERATION	MACHINERY
Mowing Greens and Tees	Toro 1000s
Mowing Fairway	Toro 5300
Mowing Short Rough	National Triplex
Victory Laps around Fairways	Toro 3000s
Mowing Rough	Toro 455
Mowing around Bunkers	Stiener Triplex
Cutting Deep Rough	Toro 322 with 72" Deck
Raking Bunkers	Toro Sand Pro
General Purpose Machines	Cushmans and Kawasaki Mule
Spraying	Cushman and tractor attached Chempros
For Hauling	Ford Tractors, Toro Workman

course, particularly those that may be detrimentally affected by weather extremes.

Of particular value to me during my time in America was working with other "turf students" from various State Universities including Ohio, Michigan and West Virginia. It was very stimulating talking and swapping ideas and information with this knowledgeable peer group. Buchen was also keen to utilise and formalise this "knowledge" pool and hosted a "turf club" every Wednesday

afternoon where we would discuss course operational matters and problems. Buchen also seems a believer in "learning by doing" and I was given tremendous opportunities to use all the various machinery during my time at Double Eagle. I learnt a great deal using new machinery including Toro Hydroject on the greens, Cushman GA60 Fairway Aerifier, and Cushman Core Harvester.

Of particular interest was the week, in November, that I spent with the irrigation engineer when

we "blew out" the system in advance of winter conditions. This was a great opportunity for me and I now feel totally confident in performing an operation which I previously thought very complex. With regard to the irrigation system at Double Eagle, wall to wall watering is achieved using a PSI Flowtronex 1500 GPM Pump Station comprising of 25, 50 and 75 HP pumps. It also incorporates a chemical irrigation injector system, used for treating 'well' water and a Toro fully automated fertiliser irrigation injector system with 650 and 670 heads. These heads can also be controlled by the Toro VT4 satellites distributed over the course. Sprinkler heads are also used as 'yardage' markers for the benefit of golfers.

The Double Eagle Club is very well equipped with some excellent machinery and pretty well everything that could be needed to keep the course in pristine condition is available. Listed are the basic machines used for day to day course operations and these

INTRODUCING THE NEW GREENSMASTER 3200-D.





Chris Knowles, right, and Terry Buchen at The Double Eagle Club

are supplemented with other specialist equipment including the Hydroject, Green and Fairway Aerifiers, Metermatic Green and Fairway Top dressers and an Olathe Core litimiser vacuum.

The course also has three excellent maintenance buildings with two full-time mechanics who operate a comprehensive range of repair and maintenance equipment. The main building also houses a first class staff room with a complete range of kitchen equipment and two drinks vending machines. Buchen and his two assistants also have their well organised offices in the main building. The other two buildings are used principally for vehicle

and material storage.

I would also refer to something that is of particular interest to me and that is the questions of "nature conservation". Over recent years, in Britain, there has been a continued growth in criticism directed at golf course development, from conservationists. The Double Eagle Club, in my view, epitomises how well a course development/conservation relationship can be achieved. Alongside the excellent, even manicured, presentation of tees, fairways and greens, the course has a high proportion of woodland, the 'Native' rough and several large water bodies. Flora and Fauna abound in the various

course environments and it was most exciting for me to see many new species of animal and birdlife, although the smell of skunk I could have done without!

I must also mention the accommodation that was made available to me during my stay. I shared a large bungalow with three other turf students. It was situated in a woodland glade, quite close to the course, and was fully furnished and provided with all mod cons. It also had its own fishing lake which also came in handy during the very hot summer of 1995 (regularly 95°F temperatures).

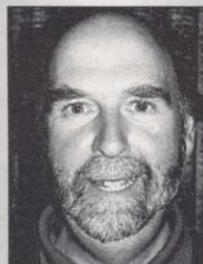
This was my first trip to America, it was a wonderful experience and I met many helpful people. The only real difficulty I found was the lack of transport, although I was able to organise lifts and, at times, course vehicles were available. I would therefore advise anyone considering a sojourn in America to plan for buying some appropriate transport.

Finally I would like to take this opportunity personally to thank

Terry Buchen and Mr John McConnell for allowing me to be part of the team running a wonderful golf course. It has left me with very fond memories, that will stay with me always and I made some new, genuine friends who I hope to see again one day.

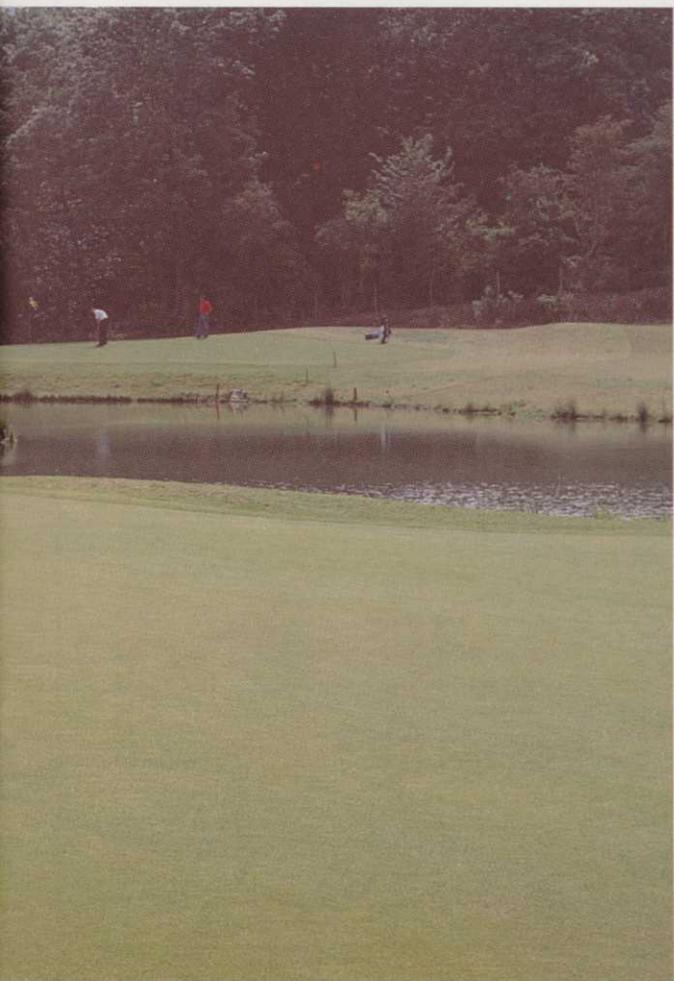
I wish Double Eagle a great future and I look forward to seeing a 'major' being played there very soon; it is certainly no more than it deserves.

IF I WASN'T A GREENKEEPER I WOULD PROBABLY HAVE BEEN:



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- Bill Sparrow, East Herts GC

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