

# A BREAKTHROUGH IN IRRIGATION AT THE BERKSHIRE



**GOLF LANDSCAPES/TORO OPEN DAY AT THE BERKSHIRE**

*Members of both private clubs and public authorities walked the course after a formal seminar session to inspect the new swivelhead control irrigation system*

One of Britain's finest heathland courses, the Berkshire, has invested a staggering £113,000 in a completely new watering system covering all 36 greens and part of the fairways.

The irrigation scheme installed by Golf Landscapes Ltd. using the most up-to-date equipment available on any golf course in Northern Europe was supplied by Toro.

An Open Day for the golfing press and all those involved in supplying services and equipment was held in August and Golf Greenkeeping visited the Berkshire to hear the technical details.

According to the club Secretary, Major Peter Clark, the club realised they needed a far more sophisticated irrigation system after the dry hot summers of 1983 and 1984 exposed the short-comings of trying to maintain a championship course without adequate water.

The head greenkeeper, Bob Morton, had moved down from the Midlands to take charge a few years ago and he was experiencing thatch on the greens

like coconut matting in places, and erosion of the greenside banks where the existing water could not reach. He was not able to slit and aerate because during those two scorching summers the staff were spending most of their time watering manually and even then they could not put sufficient water in the places they needed it in the quantities required at the right time.

The club faced the facts and agreed they needed the best system available and set up a sub-committee of three to explore all the options.

After thorough surveys, particularly on the availability of water supplies the proposals were put out to tender and the contract given to Golf Landscapes with Howard Swan in charge of the project, after assurances had been received that the character of the course would not be changed, only improved.

# SILVER JUBILEE CELEBRATIONS AT SUPATURF

1985 marks the Silver Jubilee of a company that just can't stop growing in more ways than one! Supaturf has proved itself a market leader in the supply and distribution of grass seed, fertilisers, chemicals and allied products and equipment for the turf, sports and amenity industries.

This year also marks the 20th anniversary of the union between Supaturf and the George A Palmer Group and its continual growth under the wing of Managing Director David Palmer. He is

delighted to be able to combine his own love of all sports with business—some of the finest tennis courts, golf courses, cricket pitches and bowling greens in the country owe their excellence to the work of groundstaff, greenkeepers and Supaturf all working together.

The past 25 years have seen Supaturf grow from a small family business selling other company's products to a large, nationwide concern based in Peterborough. Its five distribution depots now market many of their own brands, offer a first class advisory and laboratory service, and constantly introduce new top quality products from other world leaders.



*David Palmer, Managing Director, SUPATURF Products Limited*

## SLOWCOACH THAT BEATS THE REST IN THE FIELD

Supaturf have been appointed a distributor of a range of slow-release nitrogen fertilisers, COMPO FLORANID, from BASF which work by releasing a measured dose of organic nitrogen evenly and slowly over a long period—up to 16 weeks or even longer! The release is triggered by warmth and moisture allowing grass to receive its feed requirements at the right rate at the right time. The result

is a good, healthy root system and an even rate of sward growth, thus reducing mowing frequency and producing a better looking, healthier and more resilient turf. Floranid is ideal for turf areas such as football pitches, golf courses and general amenity areas and, as it needs fewer applications than most other fertilisers, saves on time, labour and money.

## RIGHT SAYS FRED

Fred Cox is second to none in his knowledge of all grass sports surfaces, so who better to consult with all your growing and turfcare problems? Based near Rugby, he has the full backing of Supaturf's well equipped laboratories to help him help you, so don't delay, phone Fred Cox on 0733 68384.

 **Supaturf**

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Among the guests at the Berkshire to view the £100,000 irrigation system was Henry Cotton, who told those at his luncheon table he was spending a few months in England to attend the Open Championship, the Seniors Tournament and the Oval Test among his many engagements.

Henry recounted the tale of his encounters with an interviewer from one of the radio station when at St. Georges, who thrust a microphone under his nose and demanded an interview. 'What's the fee', asked Henry. 'There is no fee, was the reply. 'No fee - no interview', said our most famous golfer. 'But think of the publicity', replied the intrepid interviewer. 'But I don't need any publicity', retorted Henry.

With that the man with the tape recorder left, but returned shortly with £25.00 in grubby notes, which were gratefully accepted.

*'Now Mr. Cotton, when you had your record breaking round at Sandwich in 1934, how do you think the rough compared to how it is today'.*

Henry thought for a moment and said 'I really haven't the faintest idea, I was never in the rough in 1934!'

We were not told how the rest of the interview went.

## HOWARD SWAN, Director of Golf Landscapes - Reports

The majority of golf courses in our country are of block design for greens irrigation; that is, where four pop-up sprinklers are set around a putting surface and operate all at once, controlled by an electrical solenoid valve at the rear. More advanced systems are two by two, but most are block. This means that when the controller activates a particular solenoid valve on a green all pop-ups water for the same length of time, and if they all have the same side nozzles (as they should) they all put the same amount of water down. If however they are set for the same time but all have different arcs because of the shape of the green, some portions of the putting surface will have more water than others should one arc be smaller than the next. By having a block system it is not possible to differentiate between various parts of the green.

If one part of the green is shaded it retains more moisture than another. If the green is highly contoured with high and low spots then the turf in

any one portion does not necessarily need the same amount of water as another to sustain healthy growth.

The only way of achieving such differential watering within a green is by the use of single head control with each sprinkler with **with its own control valve "in head"**. TORO equipment features this in their electric valve in head 650 series pop-up sprinklers, and it was this unit which formed the basis of Golf Landscapes design proposal at the Berkshire.

Having established this principle with the Club, each green, tee and approach on all 36 holes was surveyed, scale plans drawn and copies sent to the Head Greenkeeper, Robert Morton, to assist him with his routine turf management programme. Joint meetings were held at the Club with TORO, Golf Landscapes and the Sub-Committee to establish the schedule of sprinkler types required on each green, tee and approach.

Besides the advantage in flexibility of turf irrigation management possible with single head control, it is possible to vary the arcs on each sprinkler on each green.

The staff of Toro and Golf Landscapes, together with the Head Greenkeeper examined each green and selected the sprinklers, four on each green, at each location. Each position was determined with some accuracy, some close to the edge of each putting surface, some distinctly away on the collar. Once each position was established head to head with the opposing pop-up, nozzle sizes were determined. Most importantly by this individual assessment, the required arc for each sprinkler was selected. In some cases the Head Greenkeeper wanted to irrigate the surrounds on a certain part of the green, so a full circle or two speed full circle sprinkler was chosen. On others, where there was a greenside bunker, a part circle sprinkler (45° - 225°) fully adjustable, was more appropriate.

In this way a custom made sprinkler schedule was compiled for each green on the courses, with a flexibility not previously known in golf course irrigation.

Similar exercises were undertaken for the sprinklers on the tees and approaches, under control in pairs, or threes dependent upon flow constraints, so that each was tailored to its own particular requirements.

A comprehensive design and installation proposal was put before the Club in September '84, accepted in October to the value of some £113,000, and materials began to be delivered in December. Early January saw installation begin in earnest, with two teams on mains pipework, put into the ground by open trenching for the larger sizes, and by moleplough for the smaller ones. In all nearly ten miles of pipe

was installed, together with the electrical wiring necessary for the various types of control to greens, tees and approaches.

This extent of pipework and cable installation took some five weeks to complete, out of a total programme of 14 weeks, but because of the frost, snow and impossible ground conditions encountered last winter, it was not brought to a conclusion until the middle of March, some five weeks behind schedule.

A 45,000 gallon tank, 3.2 metres high and 8.0 metres in diameter was erected on a reinforced concrete base at the control centre in the centre of the golf course. A new pumping station was built by the Club not only to house the packaged pumping set of 3 pumps and pressure gear, but also to act as the nerve centre for the new system where the head greenkeeper would locate a new office where the electronic controller would be installed.

When the snow cleared installation work recommenced on the course. Horseshoe pipe mains were moleploughed on the greens and approaches with a smaller pipe for the sprinklers on the tees. Hundreds of pipe connections were made, even more electrical connections, suitably insulated with resin for underground location. Great care was taken by the team to minimise disruption to the mature turf on the courses. Trench lines were seeded in, heather replanted where pipework had gone through the rough. All in all, everything was done to maintain the courses in their prime condition and golf was played without interruption throughout!

The ASL 800 station computerised controller arrived in May and was duly installed, the electricity was connected, the system was powered, pipes flushed, sprinklers set, and by early June a number of successful pilot runs resulted in a commissioning and handing over to the Club.

It had taken five months to put in what was a highly sophisticated and modern automatic system to the 36 greens, tees and approaches. In all, 150, 650 sprinklers went into the greens under single head control, sixty-three, 650 sprinklers on the approaches and practice areas, with one hundred and ten, 640 and super 600 sprinklers on the tees. Additionally, manual coupling points were located on fairways so that watering could be effected by Toro's new Micro 44 travelling sprinkler, to provide a massive head of water when necessary.

Once the Berkshire system is established, it is hoped the single head control concept can be seen to be a significant advantage over more conventional block systems, providing flexibility and accuracy in irrigation management, and in consequence better turf maintenance.

It will be the template upon which, future systems are built.