For GOLF, the brand is JACOBSEN, the colour ORANGE and the number to call is FREEPHONE 0500 026208.
It's never too late for renewals!

Time Flies ... If your membership expired in December 2000, January or February 2001, it is still not too late to renew. Just contact Tracey or Susannah in Membership Services for information on how to renew your membership. If you have retired in greenkeeping or are about to retire, your membership doesn't have to retire with you. Why not apply for retired membership and keep in touch with your friends and the industry and carry on receiving your valuable copy of Greenkeeper International. Just ring Tracey or Susannah at BIGGA HOUSE.

Great News ... After last months successful PGA show in Dallas, BIGGA have received over half a dozen application forms from Greenkeepers who visited the show, making a total of almost 30 BIGGA members in the USA. BIGGA now has over 250 overseas greenkeepers in total, situated all over the world.

Time to Talk ... Need to chat with other greenkeepers about a work related problem? Don't go it alone, gain advice from your fellow greenkeeper members. Visit the Members Area Bulletin Board and start a discussion. This is a new service providing all greenkeepers the opportunity to discuss any topic of interest relevant to their profession. If there isn't a bulletin board of interest, create a new one. Visit www.bigga.co.uk and login to the members area for an exciting and communicating experience.

March's Monthly Membership Draw Winner

Just introduce one or more new greenkeeping members to BIGGA and your name will be placed into a draw to win a fantastic BIGGA sportswatch. Our congratulations go to March’s winner, Paul Peasgood of Stoke Rochford GC.

BIGGA welcomes ...

Scotland
Robert Allan, North
George Anderson, Central
Austen Armstrong, Central
David Cardwell, Central
Stuart Cressan, West
Angus Forbes, North
James P Fox, Central
Richard Johnstone, North
John Kelly, West
Christopher Lammas, West
Alan M Pope, West
Stuart Orr, West
Norman D Race, North
Craig Peer, West
Thomas Simpson, Central
Douglas Storie, West
Andrew J Tubby, Central
North
Gary Anderson, Northern
Liam Barclay, North
David M Chealvick, Northern
Carl J Davies, North
Craig Peckham, Northwest
Leonard Frith, Sheffield
Christopher Gwili, North West
Stephen Holme, East
James Howie, Sheffield
Dyann H Hughes, Wales
Stephen G Jones, North West
Maurice Gardener, BB&O
Peter C Snell, Surrey
Kevin D Williams, S Wales
Agostino Gaude, Italy
Greg Bowes, S Wales
Robert Westerdale, E Midland
Robert Beeby, BB&O
Matthew Hicks, BB&O
Mark R Kiff, Essex
Mark Farrer, Surrey
Don Wells, Surrey
Mike Bridge, BB&O
Randy Van Fleet, USA
Brian W Powell, USA
Klaus Thorsen, USA

Midland Region
Robert Rwiley, BB&O
Graeme Birkett, BB&O
Matthew Tiley, BB&O
Geoffrey H Carrigan, BB&O
Alan Cottrill, BB&O
John M Davies, BB&O
Steven J Duffy, BB&O
Graham Evans, BB&O
James Fletcher, BB&O
Paul French, Mid Anglia
Maurice Gardner, BB&O
Stevie Gravely, BB&O
Gary A Haworth, Mid Anglia
Matthew Hicks, BB&O
Austine D Higgins, BB&O
Danny R Kirby, Mid Anglia
Andrew R Miller, Mid Anglia
Robert V Nightingale, Mid Anglia
Daniel G Perkins, Mid Anglia
Michael L Render, BB&O
Michael P Rippey, BB&O
Keith Rawdon, Mid Anglia
David Smith, Mid Anglia
Craig Sorokin, Mid Anglia
Alistair Thomson, Mid Anglia
Lee Thorne, BB&O
John Watt, BB&O
Gary A Watkinson, Mid Anglia
Robert Wastourlove, E Midland
Paul Whitten, Midland
Colin M Woodward, Midland
Martin J Green, Midland

South East Region
Stuart A Bennett, Surrey
Steven Atkinson, Surrey
Keith Allen, Kent
Alun Black, Surrey
Simon P Barker, Surrey
Richard Barry, Surrey
John M Barton, Surrey
Pete Black, Kent
Kevin Clark, Surrey
Jay A Clark, Essex
Alistair Clement, Sussex
Scott R Colgan, Essex
Nigel R Crittenbury, Essex
Michael Dilloway, Essex

South West Region
Matthew Allen, S Coast
Matthew Ashland, S Coast
Stephen Battarill, S Coast
Greg Bowes, S Wales
Robert D Brook, S West
Andresca Cocket, S West
Alistair Chubb, S West
David T Cox, S Wales
David M Crowther, S Wales
Nigel J Davies, S Wales
Alan Dresen, Devon & Cornwall
Brian Foster, S Coast

Northern Ireland
Liam J McVeigh
International Members
Thomas LAutzen, USA
Thomas Lorimer, USA
Bolton, USA
Klaus Thorsen, USA
Brendan M Kernan, USA
Brendan M Kernan, USA

Corporate Members
Agiostina Gauke, Italy
Rick Elya, USA
Dariusz Band, BB&O
Matthew J Bradwell, E Anglia
Mike Bridge, BB&O
Scott Sanders, BB&O
Simon Thornton, BB&O
Andrew Hagger, Surrey

Student Members
Christopher Baldock, BB&O
Assistant Greenkeeper, Central
Iain Morrison, Central
Holli Pace, Central
Central
Paul A Avison, N West
Mark Horsman, N West
Russ Wilson, N West
Michael C Lowe, E of England
Edward A Morley, Midland
Jacob Pinto, USA

Associate Members
Tobin Ting, China
Christopher Brown, North
Chris Friel, Northern
Chegar Edinburgh, Sheffield
Graham B Goodyear, Sheffield
Nicholas Gray, N West
I F Gilmer, Midland
David M Purnee, E of England
Andrew J Williams, Midland
Rob Phear, Midland
Paul John Moore, London
Mal Thomas, Surrey
Anthony Scott, Devon & Cornwall

Name: Steven Nicol
Club: Winterfold GC
Position: Assistant Greenkeeper
Age: 31
1. How long have you been a greenkeeper? 14 years
2. What education are you currently undertaking? None
3. Which one task do you most enjoy doing? Cutting greens
4. Which one task do you most dislike doing? Soil and seeding divots
5. What job other than greenkeeping might you have ended up doing? Bricklayer
6. Who has been the biggest influence on your career? Former Head Greenkeeper, Stuart Greenwood and present Head Greenkeeper, Craig Pennycuick
7. What would do you improve the life of a greenkeeper? More education for golfers
8. What are your hobbies? Golf, darts and football
9. What do you get out of BIGGA? Educational seminars, magazine, meet other greenkeepers at outings
10. What do you hope to be doing in 10 years time? Course Superintendent on one of the top Golf Courses in the world
If you are worried about diving in, now is your chance to immerse yourself in the BIGGA website. And don’t worry, when you surf the site, you won’t even need a wetsuit!

Packed with news, features and educational content the BIGGA site is presented in a clear and concise format. What’s more, each item carries hyperlinks to many other relevant topics, to save you having to fish around, and best of all, we’re adding new information all the time, so the site is constantly getting BIGGA and better!

Brand new initiatives include news and feature articles from the Association’s monthly magazine, Greenkeeper International, enhanced Directory search facilities, improved Bulletin Board topics and an updated events section. Greenkeeper International is the industry’s leading publication, regularly informing members of new initiatives and opportunities within the turfcare industry. Packed with news and features every month, the magazine has a subscription currently over 9,000, but that is only a quarter of the monthly traffic to the BIGGA website.

We regularly update the Greenkeeper International section of the website with content from the magazine BEFORE the mailing date. So if you want to read about what’s going on in your industry, and can’t bear to wait for your magazine, log on to the BIGGA website today, and join the thousands of other online users.

The Time to Talk Bulletin Board was launched just before BTME, and enables greenkeepers to exchange news, views, tips and tricks between each other. The more subjects that are discussed, the more knowledge will grow in numbers and in shared knowledge. There are currently over 120 registered users, and the list is growing on a daily basis, but with a membership of over 7,000, that’s just a drop in the ocean!

If you need help or advice with any greenkeeping matter, then log onto the Time to Talk Bulletin Board, and register today. It’s quick and easy to do, and as soon as you’ve posted your query, you can sit back, and watch the responses flood in.

If you have any comments or questions regarding the BIGGA website, we’d be delighted to hear from you. After all, the website is another tool you can use for either information or communication, and we can only improve it by listening to comments from you. Please address your email to <webmaster@bigga.co.uk>
A new career in Germany for Andrew Jeffrey together with Peter Haggarty has opened the door to a whole new set of challenges ...

As an experienced Landscaper of 15 years and pretty set in my working ways, starting my first day's work as a Greenkeeper was very daunting. I had decided some six months prior to April '98 to try and find work on a golf course, firstly because I am fascinated with the sport, and secondly I wanted a new challenge and considered that perhaps a golf course could use a landscaper from time to time.

I was very lucky to be offered a job as Greenkeeper/Landscaper at Golfplatz München Nord-Bichenried in March '98. I had lived in Germany since October '92 so I could speak German fairly well but nevertheless I was very relieved when I met the Assistant Head Greenkeeper who turned out to be Peter Haggarty, recently moved over to Germany from Helensburgh Golf Club in Scotland.

I learned very quickly that Peter is a very talented golfer (plays off scratch) and has a terrific enthusiasm for everything in greenkeeping and in particular course development and construction. Like me, Peter is constantly trying to find ways in which you can improve on things, or how you can do something better next time. One thing, however, struck me after a fairly short while which was every time a new bunker was constructed, or if ideas for course upgrading were to be considered, the Club would ask outside companies for advice and eventually a quote. My thinking then was "we could do that" and "why should we bring in outside help when we are capable of doing the work ourselves". Essentially keeping everything "under one roof" seemed to be an obvious way forward for a number of reasons. Firstly, if you have experience in construction and a sound knowledge of up-to-date construction techniques, then why would you bring in outside help? Secondly, I am convinced that if you are passionate about something you will always give 125% to achieve the best possible result. Also, you can be justifiably proud if you have been directly involved and the finished product works and looks good, and finally the cost savings to the club are enormous.

With this in mind, we started talking to our Club Manager, Dieter Von-Restorff, who listened to what we had to say and didn't dismiss the idea as ridiculous as we had feared. The outcome was that there was indeed work that we could undertake and our first project was to make a feature out of a very neglected pond sitting very close to our 4th green. I saw it as an opportunity to really upgrade the area while Peter saw it as an opportunity to really enhance the hole from the perspective of playability. We worked together on ideas and the end result was a greatly enlarged pond which came in much closer to the green with a stone retaining wall which gave great definition to the hole and a new fore green. The whole thing worked and definitely enhanced the look of the hole.

As a result more ideas were discussed and in the winter of 98-99 we started work on a big project which would entail the complete upgrading of one of our par 5 holes. It included the construction of a 1200sqm pond, over 150 metres of stone retaining wall, the complete reconstruction of the fore green and a new bunker. This was indeed a big project because, not only are we a private members' club but also the host to the BMW International Open played in late summer. So we had to build something that was fair for our members but also a test for the Pros who visit us. We were very pleased with the result (see photos), the members liked it, and as some of the scores on that hole showed during the tournament, indeed a good test for the Pros.

Since then we have undertaken many projects and it is as a result of being able to communicate to a Committee and Club Manager who are prepared to listen, that has allowed this to happen. We are indeed fortunate.

Currently, we are completely upgrading our practice facilities, and have as of now, built ten target greens on the driving range, constructed a new bunker practice area, including a new green, a pitching area enclosing a green, and a new 350sqm chipping and putting green. All these
ten to what greenkeepers have to say. After all, we are all members of the same team and the success of the team is only as good as the people within it, so if you all work together then surely you will be successful.

We are currently building a new 9-hole course and the Club has asked that Peter and I oversee the construction. Again, a very positive approach, in respect that although this is a huge responsibility the Club appreciate that we will have to manage the Course when the constructors have gone home so it is essential we know how it is constructed so we can plan maintenance schedules more precisely for the future. A good argument then for "keeping it all under one roof".
HARDI Amenity Sprayers
New Specifications to meet
the HSE and Groundwater Regulations

The HARDI Defender booms are the ONLY amenity shrouded sprayers to have 3 Star LERAP approval, which will allow you to reduce the buffer zone around water from 6m to just 1m.

Cooper Pegler is the preferred choice for professional users, with a range that consists of knapsack, compression and defender type sprayers.

Ideal for greens, cricket squares or other fine turf areas, the Mini Defender is self-contained with a 1 metre wide shrouded boom and 30 litre capacity tank.

Specialists in the field of Amenity Spraying
Cedric Johns looks at the common but misunderstood phenomenon lightning and examines the best way to avoid being struck.

Despite what we may think, this country is fortunate that in regional terms, our weather patterns do not generate electricity storms with the same intensity as those experienced in other parts of Europe, say in Southern France, Spain or Portugal - nevertheless, when lightning strikes it can be lethal, especially on the wide open spaces of golf courses.

Lightning is responsible for thought provoking fatality rates: in the United States for example, lightning strikes kill two thousand individuals each year, causing severe injuries to another 1,500 - 2,000 individuals.

Before dismissing these figures with the thought that America is far removed from the golfing scene, be aware that although lightning strikes in this country are not as common as overseas, statistics indicate that the number and severity of electrical storms has increased, especially in Southern England.

A lightning strike, causing damage, personal injury or worse, a fatality on any golf course is one strike too many. When last year, a player was injured by lightning at The Wisley Club, club officials reacted with commendable responsibility.

Having taken advice, they decided to minimise the risk of similar, future incidents by installing an electrical storm warning system to protect players and green staff out and about the 36 hole course.

Known as ESID - Electrical Storm Identification Device - the system, already in use in this country on R&A tournament courses, and at home and overseas on the PGA European Tour circuit, is the first to be specified by a British golf club.

Supplied and installed by the Hydroscape Group, the ESID display unit, located inside the Wisley pro shop, is designed to project visual information indicating the presence, range and direction of cloud to cloud and cloud to ground lightning discharges, the moment they happen.

Coverage - through a 30 mile radius - is impressive. Working on a 30 mile radius, the detection system reaches out to St Albans to the north, Worthing in the south, as far as Tunbridge Wells, in the east, and westwards, as far as Basingstoke, covering some 2,800 - square miles.

When the detection unit registers two cloud to ground lightning strikes within a ten mile radius or one within five miles of the club, it automatically triggers an (optional) alert controller which sets off warning sirens located at predetermined points around the golf course, giving players and greenkeeping time to vacate the area.
Above: The Hydroscape ESID warning system

The unit's digital display information can be varied by programming it to indicate other warning thresholds. In addition to safeguarding people out on the course, warnings provided by the ESID detection system also enable greenkeeping staff to switch off irrigation controllers (or other, sensitive electrical equipment) to minimise the risk of damage caused by lightning strikes.

What is lightning? Physically, lightning is an exchange of an electrical discharge between clouds or from cloud to the earth's surface. Such exchanges travel at the velocity of at least one third the speed of light, with current levels running as high as 35,000-40,000 amperes, generating one million volts or more.

In addition to electricity, lightning - more particularly a bolt - superheats the surrounding air to temperatures to an almost unbelievable 50,000 degrees centigrade. That's five times hotter than the sun's surface.

Lightning originates from thunderclouds - typically "charged" cumulonimbus clouds. The classic thunderbolt is essentially an electric dipole with a positively charged region above a negatively charged region.

Two theories exist as to how clouds are electrified: according to the convective theory, cloud droplets trap ions in the atmosphere which are moved by convective currents within the cloud to produce charged regions. Alternatively, the gravitational theory suggests that the heavier negative particles tend to be in the lower portion of the thundercloud due to gravitational attraction. Whichever, a charged thundercloud is an unstable entity. Electric fields emitting from thunderclouds can become so strong that they cause an electrical breakdown of the atmosphere.

When this happens, a change is exchanged via a lightning flash travelling in four possible routes: from cloud to cloud, cloud to ground, from cloud to air or within the cloud itself.

Cloud to ground lightning flashes have three distinctive parts, each occurring in microseconds: the stepped leader and the dart leader. The stepped leader involves the transfer of the charge from cloud to ground along the path of least resistance, in a succession of steps.

This transfer can sometimes follow different paths resulting in what we know as forked lightning. When the stepped leader gets close to the ground it induces corona discharge (dielectric breakdown in the air, which we call St Elmo's Fire) from tall objects - like isolated trees, pylons, church steeples - which literally "reach out" to the leader.

Connection between the leader and the discharge 'closes the circuit' and establishes an unbroken path between cloud and ground. This triggers a powerful, upward return stroke which ends in the originating cloud.

The lightning flash may end there or, if the return stroke imparts enough charge to the cloud, a dart leader may emit from the cloud and return in a direct path to the ground. A kind of double whammy!

This dart leader can be powerful enough to induce a second, return stroke. On average, a single lightning flash consists of the three or four return strokes but flashes of up to thirty return strokes have been monitored.

There are also two kinds of cloud to ground lightning: a positive flash which transfers a positive charge, the negative, which as it suggests, exchanges a negative charge with the ground. Usually consisting of a single stroke, positive flashes are potentially more dangerous as continuous currents created can last up to ten times longer than a negative flash.

That said, you don't need to be an expert to recognise a thunder storm. Lightning (thunder, incidentally, is the consequential shockwave from the electrical discharge) you can see lightning.

If this happens and you are caught out on the golf course bear in mind the following: avoid solitary trees, open areas, waterlogged areas and high ground. Avoid all metal objects including sprinklers, fences, machinery, flagpoles, power lines, telephone lines and unprotected, small open sided buildings.

If you are in a group, spread out, allowing at least twenty feet distance between yourself and the next person.

In contrast, seek shelter in a substantial building or fully enclosed metal vehicles - like a car, van or 4x4 - ensuring that all windows are closed. If these are not within walking distance, look for cluster of small shrubs or trees or find a ditch, trench or low ground

Leave mowers, small pick-ups or golf buggies behind you. Take off any form of metal objects you may be wearing; watches, chains and the like. Clubs and umbrellas should also be discarded.

More sensibly, the next time you are out on the course and you hear or see thunder or lightning, forget about edging that green and taking bunkers or if you are playing, finishing that hole. Walk off, the risk is not worth taking remember the fates can strike with lightning speed.

In this day and age, golf clubs, playing members and greenkeeping staff have a duty to each other and themselves to take all necessary precautions to reduce the risk of injury or worse caused by lightning strikes. The R&A, PGA European Tour and now the Wisley club have taken the initiative by using ESID detection systems. Maybe your club should think along similar lines. Discuss.

Readers wishing to learn more about the storm detection systems mentioned in this article can consult Peter Roberts, the Hydroscape Group, telephone 01425 476261 or contact Cedric Johns on 01202 311345 or 01425 614790.
Green grass is not always a sign of a healthy soil structure.

Constantly saturated ground or a build up of fine soil particles restricts drainage and air movement, breaking down the soil elements into even finer particles. The increasing clogging or total collapse of pore space causes anaerobic conditions, weak root systems and thinning turf.

Help is at hand

Integrate is a patented blend of water soluble polymeric polyelectrolytes applied to the turf as a conventional high volume spray. As the polymers move down through the soil profile they unwind sending out a strong anionic charge that attracts the cationic charged clay and organic "fines", drawing them together into larger, water stable particles.

The result is an 'opening up' of the soil structure to provide an improved flow of air and water into and through the soil and, with additional pore spaces to develop pathways for deeper root growth, a more healthy, vigorous, dense turf will be achieved.

Initial applications will penetrate layers and solid soil structures and the turf manager should see the results in reduced soil compaction and lower bulk density.

Unlike wetting agents, Integrate directly repairs the cause of poor soil structure rather than just addressing the symptoms.

It's good to talk!

Freefone 0800 424 919

Integrate is marketed in the UK and Europe by GreenLink International Ltd, 1 Rysley, Holybread Lane, Little Baddow, Chelmsford, Essex CM3 4DD
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