

wanting to use glyphosate will be left with heavy horses and manual methods to flay, flail, roll, beat and bruise bracken into submission.

Asulam is available for use in 2012 under use-up provisions and moves are underway for re-registration to secure its future for the long term. This may take five years but there is now the possibility of obtaining a series of Emergency Authorisations for 2013, 2014, 2015 and probably 2016.

Carbendazim

Carbendazim is the last in a long line of chemicals used by greenkeepers to control surface casting earthworms and the mess they make on greens and tees.

The situation with carbendazim is becoming something of a saga and many are claiming that the pesticide will go sooner or later, although nobody seems to know when.

If it does go, and there is no certainty that it will, carbendazim will essentially have been 'hoisted by its own petard' as a highly effective, and essential lumbricide (wormicide). You couldn't make this one up if you tried because if carbendazim does fall it will be at the hurdle erected to trap pesticides which have negative effects on earthworms.

You can almost imagine the farcical situation some years down the line when the custodian of carbendazim is up in front of the 'beaks' in Brussels and the question is asked, "Does your candidate wormicide have any effect on earthworms?" The real irony is that if carbendazim goes and has nothing chemical to replace it, then any benefit seen by the 'burghers in Brussels' will almost certainly be lost in the fall-out.

They will see withdrawal of carbendazim as further reduction in pesticide loading on the environment, but this will be more than made up for by herbicide applications to control the broadleaf weeds getting a quick and easy start and secure foothold on worm casts deposited all over greens and tees.

Furthermore, it can only add to mole activity and require greenkeepers to call in specialists to do more unspeakable things to these wild mammals which are protected in some other European countries.

Chlorpyrifos

Chlorpyrifos, the only sprayable insecticide for control of leatherjackets in turf, is the latest pesticide to stand in the spotlight,



The Spraydome 5000 from Micron Sprayers designed with shielded rotary atomisers to virtually eliminate spray drift (Photograph courtesy Micron Sprayers)



If carbendazim 'the last lumbricide' is eventually lost any gain in reduced pesticide loading will be more than compensated for by the extra herbicide required to control a much larger and wider weed population on greens and tees.

although current scrutiny is on its role in agriculture where the tonnage used is large and the application is much more broadly based than on turf.

Use and application as a spray on managed turf is vital but miniscule compared to what goes on with chlorpyrifos in agriculture where it is used on vast areas for leatherjackets and to control other important pests such as orange wheat blossom midge.

Agriculture is fighting back with

a programme of enhanced product stewardship and a new set of guidelines under the banner 'Say NO to DRIFT'.

This includes adhering to an extended no-spray buffer zone of 20 metres adjacent to water courses and the use of LERAP three star rated low-drift nozzles for all chlorpyrifos applications. Any loss of chlorpyrifos for use on turf would almost certainly be collateral to its situation and status at the time in agriculture.



Greenkeepers may not even be aware that the herbicide asulam appears to be on its way out unless they traditionally have a bracken control problem



Defining the boundaries



Boundary lining



WORKING FOR GOLF

Quite understandably, greenkeepers tend to be entirely focussed on the condition of their courses and, with time always being of the essence, keeping the course accurately “marked” from a Rules of Golf perspective can be difficult. However, ensuring that the course is defined should not be considered an optional extra but rather as an essential part of maintaining the course. Grant Moir, Director of Rules, at The R&A, writes...

When a course is not defined accurately it can lead to confusion on the part of players, and this can lead to breaches of the Rules, such as:

- **Playing the ball from an out of bounds area**
- **Moving loose impediments in a water hazard, or**
- **Taking relief from an area that has ceased to have the status of ground under repair.**

When a course has clearly marked boundaries, water hazards and ground under repair it shows a high level of professionalism, and reflects well on the greenstaff and the Club.

Boundaries

If it is a while since you turned your attention to the Rules of Golf in relation to your course, then the first place to start is with the boundaries. Ideally, the entire perimeter of the course should have an accurate boundary.

If you are fortunate, much of the course boundary will be defined by fences or walls, but most courses have some areas of the boundary that need to be supplemented by white stakes to “join” the permanent features and create the complete boundary.

The difficulty with using stakes is that they can be moved. Greenkeepers with courses by the beach will know that wooden stakes are

often used for sizzling sausages on a Saturday night, so it is important to keep a check that the stakes are still in place.

As the Rules provide that boundary stakes are deemed to be fixed, there is no disadvantage to the player if boundary stakes are made permanent.

This can be done by using metal poles sunk into concrete, which are given a lick of paint every so often. This can solve the problem of stakes being removed.

Of course, it is not only the perimeter of a course that can be defined as out of bounds. Many courses have internal boundaries, for example, around maintenance areas or between two holes to prevent players playing down the ‘wrong’ fairway. Internal out of bounds is entirely acceptable, but again it is important to ensure that these boundaries are well defined at all times.

Water Hazards

Perhaps the most common failing when it comes to course marking is in relation to water hazards. Some water hazards have very clearly defined edges, so there is no doubting whether a ball lies in or outside the hazard.

However, many rivers, burns, ponds, ditches and the like do not have distinct margins, and in such cases it is necessary to define the margins using stakes or painted lines.



Such definition enables the player to know whether a ball is in or out of the hazard. This is important for the following reasons:

- If the player wants to play the ball as it lies, he knows whether the restrictions that apply to a ball in a hazard apply (e.g. not grounding the club, not moving loose impediments), and
- If the ball is in the hazard, the player knows that the relief options provided under the Rules for water hazards are available.

In addition, as the point where the ball last crossed the margin of the hazard is often the relevant reference point for taking relief, the fact that the margin is clearly defined will enable the player to proceed correctly under the Rule.

It can be costly and time consuming to define water hazard margins with painted lines, so the use of stakes tends to be the method of choice for daily play.

When positioning stakes, it is important to bear in mind that the margin will be a straight line from stake to stake, so you need to ensure that this provides an appropriate margin for the hazard that is being marked out.

Another important element to defining water hazards is the distinction between ordinary water hazards (defined by yellow stakes or lines) and lateral water hazards (defined by red stakes or lines).

The simple explanation of the distinction between the two types of hazard is that, where it is impossible or not practical for a player to drop back on a direct line to the

sultation with the Club Committee, County Union or National Union may be appropriate.

Ground Under Repair

We always advise referees to review the entire course before marking any ground under repair (GUR). It is easy to get trigger happy with the paint on the 1st hole and then find that the type of area that you have marked as GUR on the 1st is prevalent on many holes and is far from abnormal to that particular course. The advice, therefore, is not to overdo it with GUR. Golf courses are not perfect, despite the best efforts of greenkeepers. Players should have to deal with bad lies, bare ground and the like, and coping with such challenges is a test of a player's skill and mental fortitude.

Also, the farther a damaged area is from the line that the player should be on, the less compelled you should feel to make it as GUR. In other words, while you might want to define a muddy area on the fairway as GUR, it is entirely reasonable to expect the player to play from such an area when it is situated 10 yards off the fairway in the rough.

When areas are to be defined as GUR, they need to be clearly marked. Simply putting a notice in the ground does not help the player. The player needs to know the extent of the area that is GUR so that relief can be taken correctly, so again stakes or lines need to be used for definition. There is no strict colour

“Internal out of bounds is entirely acceptable, though it is important to ensure that these boundaries are well defined at all times”

hole when taking relief, the hazard should be defined at a lateral water hazard, which then allows a player additional relief options. Take, for example, the beach running along holes 4 to 8 at Turnberry - going back on a direct line to the hole would probably mean dropping a ball on Ireland, so the beach on these holes is defined as a lateral water hazard. This allows for a drop two club-lengths to the side of where the ball last crossed the margin of the hazard.

There can be occasions where the decision on whether to define a water hazard as yellow or red is a tricky one, and that is when con-

for marking GUR; white is common but can be confused with boundaries so blue is quite a popular alternative. The Local Rules should make it clear how GUR is defined.

Unlike, boundaries and water hazards, the hope with GUR is that it will only have to be defined as such for a limited period of time. When an area ceases to be GUR it is important that this is obvious. Don't leave a faded line that players could think is still defining the GUR. If necessary, apply some green paint to make it clear that the area is no longer GUR or put a very visible sign at the area stating that it is no longer GUR.



The Rules give the player the option of playing from GUR, but the Committee also has the option, by Local Rule, of prohibiting play from areas of GUR. It is fine to prohibit play, and often sensible when attempts are being made to allow an area to recover.

However, if a player is being forced to take a drop, it is important to assess where the Rules require relief to be taken. If the nearest point of relief is in the middle of a bush, you might receive legitimate complaints. It may be that a dropping zone is required in such circumstances.

To Finish...

Course marking is not a huge task if you keep on top of it. Sometimes it is best approached by allocating the responsibility to a specific member of your staff, perhaps one with a good golfing background who understands the relevance of the various stakes and lines.

And, if your Club has any doubts about course marking issues, there is always help at hand from the county and national bodies, or from The R&A.



High hopes

Jim Cook takes a trip to Wiltshire, to meet the team at High Post GC, a club with ambition as high as the level of beauty it entails

Last year, Paul Hope, a greenkeeper at High Post Golf Club, won BIGGA's 2011 photographic competition with a stunning shot of a deer prancing over the course at first light.

After a visit to the club, one of the striking features was how much of an oasis, or even haven, this picturesque Wiltshire course offers for many other types of rare and elusive wildlife as well as deer.

It was a warm day in mid-May when I met with Course Manager, Lachlan Morrison and the team at High Post. Lachlan was keen to speak about the importance of ecology to this club and said:

"We're in the process of sympathetically clearing scrub areas and regenerating our gorse areas. We've re-planted gorse in new areas and it's looking quite impressive, with new plants sprouting through where we cleared. We've also exposed a pine

tree next to the 6th tee which was previously covered and some holly trees."

Paul Hope said: "The wildlife is abundant out there as well. Of the birds, we've had red kites over the course for the first time in several years and sparrowhawks, kestrels



Winning shot for BIGGA's 2011 photographic competition



and short-eared and tawny owls have been seen. Two years ago kestrels raised two young from a box on 18. That's one of the things I love about the job because we manage that bit of land out there and still co-exist with the fauna."

The club's logo shows a hare running beneath a tree and every day these animals are seen on the course along with others such as foxes, owls and all manner of birds of prey.

Lachlan said reasons why the 110 acre downland course sees so much wildlife are because of ecology work, environmental grasses and also that it is surrounded by arable farming land.

It is interesting to note that greenkeeping runs in the family for Lachlan, who is originally from Renfrew, Scotland, and he is part of four generations taking up the profession, with his grandfather, father, two brothers, three uncles and their sons all working at various courses.

He spoke about his chemical usage: "We don't use a lot of fertiliser and try to be as green as we can by keeping spraying of fungicides to an absolute minimum.

"We were fungicide-free up until the winter before last when an attack of snow mould meant we had to use them. Since then we've changed our policy and sometimes use fungicides as a preventative.

"We use lot of seaweed products

Jim Cook had a chat with Paul Hope about his photography

What is the story behind your picture of the deer on the course?

"Through the summer I often come in at first light with my camera. I love photography, always have done, and I was out at silly o'clock chasing the sunlight, catching the sunrise off to the side of the second green. I rattled a load of shots off and was stood off to one side leaning against the pine tree smoking a cigarette. The deer wandered out from the trees on my left and stood right in front of me. I got some shots of it walking across the green, one of which was the one I won the competition with and then it came and stood about 15ft in front of me, posed for a minute, then off it went. Usually they run as soon as they see you and I'd been after a picture for ages. Last year there were three of them; a mother and two little ones."

What other wildlife have you enjoyed taking photographs of?

"I'd not seen a short eared owl on the course before and it was brilliant to get a picture of one of them. All kinds of birds of prey and the red kite is probably my favourite. I love seeing the wildlife here. I'm out with my camera for hours trying to get good shots of them. I haven't seen a snake yet though and would love to get a shot of one of them."

Do you do much photography away from the course?

"Yes lots. I do portraits, weddings and studio work and I would like to set up my own business."

Where did you learn the skill?

"I'm self taught. I've always been into it and most of the cameras I've owned up until about five years ago were point and shoot ones. I always thought photography was too difficult to learn, but the basics are so simple. From there it's just practice."

What other photographic awards have you won?

"I was runner up in a Salisbury Journal competition last year, won the last two competitions in the Stonehenge Trader and won a Visit Wiltshire one."

Last year Paul used some of his pictures taken out on the course to create a calendar, for sale in the clubhouse, with proceeds going to charity. This year he was planning to do the same again.





and are finding Sustane organic fertiliser gives a great response.”

Sometimes the simplest solutions to problems are most effective and this was certainly the case when Lachlan and his team were faced with chafer grubs a few years ago. Initially, badly affected areas were re-turfed, but finding this to be costly, time-consuming and short-lived, they tried using pheromone traps with great success.

Lachlan said: “We spent a fortune on turf but then tried the pheromone traps, which look like Chinese lanterns and they are just wonderful. You hang them about 2ft off the ground and it attracts then contains the adult chafer beetles. The first year we put them in we had to empty them weekly because we were catching so many.

Last year they weren't quite so successful, maybe because it was windy at the time and we caught a lot less, but each year when we've used the traps we've had much less damage the following year. It's a cost effective way of dealing with the problem.”

Of the 71 bunkers on the course, the par-five 2nd boasts 17 of them! The five-strong team hand rake them every day to keep them in good shape.

A quirky feature of High Post is the vast number of grass-filled hollows throughout the course next to greens and on fairways. From afar they do appear like bunkers, but closer inspection reveals them to contain no sand.

Some have been formed where earth has been taken to build a green, but for others, no-one quite knows what they are. Lachlan's theory that they are there to improve aesthetics and break up otherwise flat terrain is the most likely.

The hollows may look good, but in growing season especially, they can be a pain to maintain. Lachlan said: “A lot of our maintenance time is taken up with strimming these hollows but they are worth it as they add a lot.”

The course is on chalk and therefore drainage is never an issue. Previous to my visit it had seen almost constant rain for about six weeks but it appeared as none had fallen at all. This time last year the club had used about 1,500 cubic metres of water, a third of its allocation, this year the irrigation system had not even been turned on.

During summer the course is usually extremely dry and Lachlan said: “It burns to a crisp, but



because it's bent and fescue on the fairways it goes brown and then a bit of rain and it's back to life again. It does cause me to worry because green, stripy fairways are ideal, but regular communication with members helps to explain the issue."

There are 600 members at High Post Golf Club.

The club's greens have an organic content of around 6% and are mostly fescue, with some Highland bent and a little of the inevitable meadow grass.

Lachlan spoke about the sun being a cultural method of ridding greens of meadow grass, though warned: "Since fescue is more drought resistant, two months into the summer most of the meadow grass is gone. We've got to be careful though and get the balance right, because we could end up with patchy areas on the greens if the meadow grass is completely killed off."

A number of projects, large and small, have been undertaken over the past few years.

In 2008, the facilities for the greenkeepers were improved immensely. Where there used to be a single room, there is now a self-contained building with drying and washing facilities, a canteen and office.

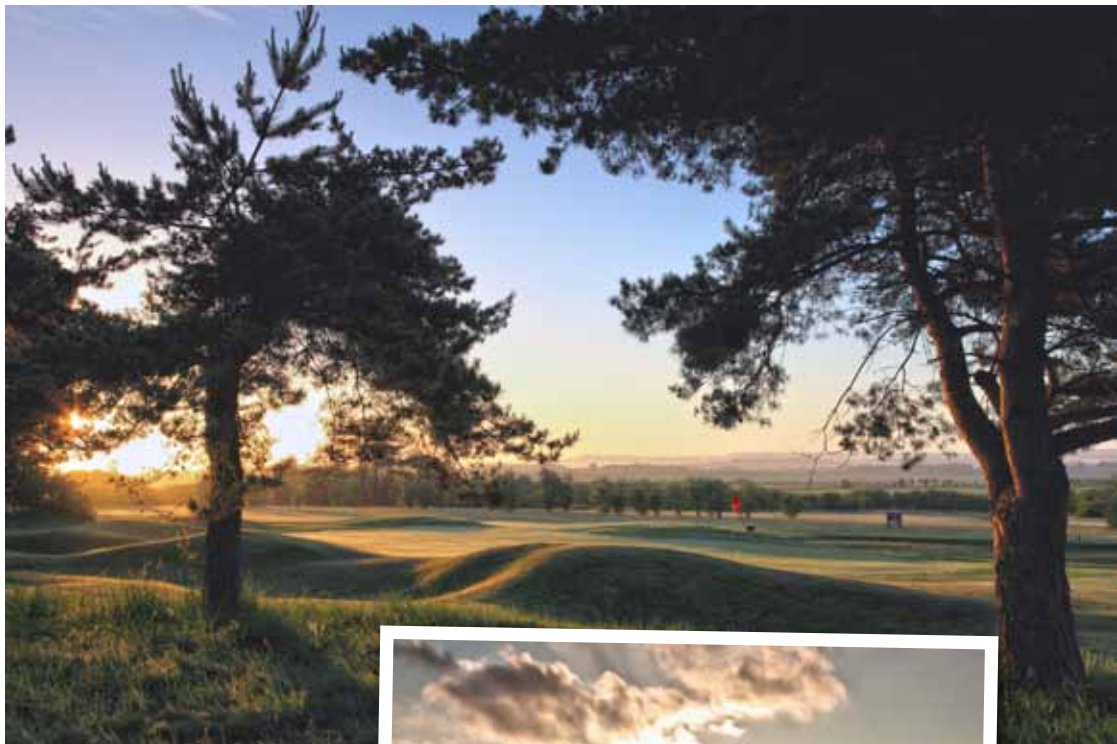
Other recent projects have been the building of two aggregate bays, one for sand and one for top-dressing, completed by a contractor last winter and also the building of sleeper-lined paths on parts of the course which was done in-house.

At 6,305 yards High Post Golf Club's course is not the longest, but challenging it certainly is.

Tournaments including the McGregor Cup, the Carris Trophy, South West Amateur and English Boys Open have been played here and the weekend after my visit two tournaments including the Wiltshire County Championships were due to be hosted by the club.

Peter Alliss, who once held the course record, has rated High Post's 9th hole in his choice of the best 18 holes in Great Britain. This deceptively tricky hole dog-legs to the right and unless a drive is placed to the left of the fairway, a hazardous blind approach awaits.

Just before I left the club, Lachlan and I stood by the 18th green watching a variety of military aircraft buzzing about the nearby MoD Boscombe Down aircraft testing base. Planes often pass low and directly over the 3rd green and a few years ago a Harrier even crashed near the course after the pilot ejected.



Our attention was soon turned to a bird hovering in thermals above the course; a kestrel preying for food. Then another at a higher altitude, which appeared to be a buzzard and then darting swallows that make the same journey from Africa every spring.

This swarm of activity brought it home how vibrant a place High Post Golf Club is.

2022 will be the club's centenary year and in preparation they were looking at bringing in architects to assess what improvements could potentially be made out on the course. Clearly the future holds a lot in store for this busy and unique golf club.



HPGC Equipment Inventory

- 2 Toro 3250 greens mowers
- John Deere 2500 greens mower
- 2 Toro 3100-D sidewinders
- Toro 5510 fairway mower
- John Deere 3245C rough mower
- Hardy tractor
- 2 John Deere Pro Gators
- 4 John Deere 220A hand mowers
- John Deere 4610
- John Deere 1070 with front loader
- John Deere 166 lawn mower



Are you a Photographer?

BIGGA's Golf Photographic Competition is back for 2012, so if you're a member with an eye for a shot, read on...



By Paul Hope. "I was out taking photos of the sunrise one morning when this young stag just wandered right into the shot," at High Post Golf Club



By Adam Gilvye. Early morning strimming creates mist in the sunlight, to beautiful effect, on the 3rd green bank (Devonshire Course) at The Royal Eastbourne GC



By Gareth Ansell. Spectacular cloud formations compliment the surface shadows and bunker layout on the 15th at Bon Oak Golf SS, Palacio Palma de Mallorca

The BIGGA Golf Photographic Competition, back for its sixth year, creates an opportunity for members to display their artistic flair, while also earning some publicity for their club.

The winner will receive a full course profile in GI and a special prize, while the 12 best pictures will be selected for the 2012 BIGGA Calendar.

Digital pictures need to be high resolution, at the largest size capable by the camera, as it may ultimately be scaled up to A3 print size (42cm wide x 29.7cm high).

Please label your entries with captions - the name of the course plus a brief description (around 10 words). It would be great if you could also tell us the spec of camera it was taken on too.

Please try to avoid reducing the file size to fit on email as this will reduce the quality of the image.

If the file size is too large to send, we recommend using a compression facility such as winzip or a website such as:

www.mailbigfile.com.

Please note, cropping may occur if photos are to appear in the magazine or calendar. Also ensure digital photos do not show the time/date display!

Anyone wishing to enter should email them to: tom@bigga.co.uk, entering 'BIGGA PHOTO COMP 2012' as the email subject header.

All entries need to be received by July 31, 2012, and only BIGGA members are eligible to enter.





Algae in ponds and lakes

Graham Paul returns with another opportunity for you to earn more BASIS points

The term 'Algae' translates as 'seaweed' in Latin and describes a large group of organisms that can be found in saltwater, freshwater, in soils and in a wide variety of other habitats.

Algae exist as single celled or multicellular organisms that vary in size from microscopic to macroscopic – marine seaweeds are actually complex forms of macroscopic algae and some can grow to 50m in length. Most algae are able to trap the sun's energy by photosynthesis.

The classification of algae is too complex for the scope of this article and like many academic topics is subject to frequent changes. For example, detailed study of the so-called 'Blue-green algae' has resulted in them being re-classified as Cyanobacteria – a phylum of bacteria-like organisms that are photosynthetic.

For the purpose of this article we shall concentrate on those types of algae that cause problems in amenity situations, factors encouraging their development and methods of control.

Algae can cause a variety of problems in water with appearance being high on the list in amenity situations, where water bodies,

such as ponds and lakes, are an important part of our natural attractive landscape. Filamentous algae produce a thick mat that floats on the surface of ponds and lakes. These mats, which are sometimes referred to as 'blanket-weed' or 'cott', are particularly unsightly and will also cause problems in blocking outlets, pumps and sluice gates where water is used in irrigation or processed for drinking.

They make navigation difficult for waterfowl on static water and on slow moving waters in canal systems and can restrict gaseous exchange at the surface with consequent reduction in water oxygen levels that can harm fish and other aquatic creatures.

A group of macroscopic algae known as the Stoneworts (*Chara* spp. and *Nitella* spp.) are often mistaken for varieties of rooted, submerged aquatic weeds. Stoneworts are highly developed forms of algae that have branches arranged in whorls and can grow to 1m in length.

They will often form large masses, floating below the surface of the water. The plant can become encrusted with salts extracted from the water and when handled has a 'brittle' feel – hence the name.

Cyanobacteria are unicellular organisms that can grow in large numbers under the right conditions, producing an algal bloom that some people refer to as 'pea soup'! In a static body of water this will cause the dissolved oxygen to become depleted, with consequent harm to any vulnerable aquatic life.

Although Cyanobacteria are no longer classified as 'true algae' there is a group we refer to as the 'Green water algae' that includes many single celled species with the ability to produce a green algal bloom in slow moving or static water.

Causes of algae problems in water

The main cause of algal development in a body of water is an excess of dissolved nutrients (nitrates and phosphates) usually leached from nearby land. Like higher plants, algae need the same growth stimulants; a supply of nutrients, warmth and light.

Strategies to Control Algae.

There are no longer any chemicals available to control algae in water in Europe. However, dealing with the problem is a simple matter



MAIN ABOVE AND INSET ABOVE: Filamentous algae – known as 'blanket-weed' or 'cott'

