



Keeping the greens in play

A drainage and sand banding combination keeps the greens in play at Robin Hood Golf course.

Three years after joining Robin Hood GC, Course Manager Andy Wood is delighted with significant improvements that have been made in that time.

When he first joined the team, he was concerned with the poor drainage on the course that kept it out of play.

With development funds at his disposal, Andy was able to make several improvements.

Previously, the greens staff had employed various aeration

techniques to improve the flow of moisture through the root zone, but none have been as effective as using the AFT 45 at installing drainage lines at 1.5metre centres, followed by diagonal adjoining lines with the Sandbander, to provide even greater opportunity for the water to flow into the main drainage system.

"The AFT 45 is an excellent, easy to operate trencher. Coupled with the Sandbander, it is a perfect combination of equipment to keep our course in play all year round," said Andy.



Shelton Super Trencher

It is just over a year since sportsturf drainage specialists Shelton SDS launched what has become a worldwide bestselling machine; the Shelton Supertrencher+ 760.

This trenching machine was built as a result of customer feedback. Drainage specifications in some countries called for deeper and wider trenches for the pipe work, so the team enlarged the design of the Supertrencher+ 675 by using a CAD program to create the Supertrencher+ 760.

According to Sheltons customers, the success of the Supertrencher+ 760 is largely down to its versatility. It is ideal for installing both primary and secondary drainage systems on any amenity grass. The machine has digging capabilities of up to 760mm deep and 155mm wide, so a chain trencher may not even be required for the primary system and it can also dig a trench as narrow as 50mm. For more information please visit: www.sheltonsdrainage.com

What's your number?

Our regular and random profile of an industry figure continues with this month's lucky number...

Van is the man, as this month What's your number goes Dutch



Name:
Peter van Mispelaar.

Company:
Vanmac/Trilo.

Position:
Owner/director of Vanmac (50% shares).

How long have you been in the industry?
23 years.

How did you get into it?
After practicing from school.

What other jobs have you done?
I worked with dairy, I was born on a dairy farm and I still like this industry.

What do you like about your current job?
Selling the equipment and managing people, so things go as they're supposed to go.

What changes have you seen during your time in the industry?
The market forces us to build cheaper machines because the budget is smaller. Also we don't see new machines, but existing machines that are fine-tuned and made in a wider range.

What do you like to do in your spare time?
I like to mountain bike in the forest.

Where do you see yourself in 10 years time?
I see myself as director of the company still, but at a different scale.

Who do you consider to be your best friends in the industry?
My best friend in the industry is Leo van Loen, my partner in the business.

What do you consider to be your lucky number?
I don't really have a lucky number but, 44 is a nice number.

GI

INDUSTRY UPDATE

The latest turf industry news from around the globe

Email tom@bigga.co.uk with your press releases and news items

With the Masters out of the way our attention now turns to the high profile international tournaments that will take place in the UK this year.

In future editions Greenkeeper International will feature the excellent work undertaken by BIGGA members Chris Kennedy, Paul Smith and Curtis Tyrrell MG for the BMW PGA Championship, Open Championship and Ryder Cup Matches respectively.

This month, Jim Cook kicks off a series of articles offering an insight in to the preparations for the ISPS Handa PGA Seniors Championship at Slaley Hall

Preparing Slaley Hall



Slaley Hall Golf Club will, for the fourth year running, host the De Vere Club PGA Seniors Championship event this summer.

Steve Cram, Course Manager at Slaley Hall, spoke about the preparation involved for this Seniors Tour event and improvements made since Andrew Oldcorn secured his Maiden Senior victory last year

He said: "Last year we got really good feedback from all the players, who said the greens were running well and the tournament officials were pretty happy with it.

"We did a lot of drainage work on fairways with our Sandmaster and saw improved surfaces all around the course.

"Our 9th fairway was a big problem so we used the Sandmaster on that and put about 80 tonnes down into the landing area. Four years ago you couldn't walk on it, it was so wet you could nearly roll the turf up and now we've sorted all that," he added.

Slaley Hall sits 1000 feet above sea level, in Northumberland, and the conditions are often cold and wet. The weather has been dreadful this year with almost continuous

rain except for two weeks in March and even snow in the middle of April. Since the previous tournament last summer, the team at the club have been putting a lot of effort into improving drainage especially around the greens.

Steve said: "We had some greens areas that weren't draining very well so we got a drill and fill machine and we've done some major work on them, so they will drain pretty well now if we have any downpours.

"When we were hollow coring some of the problem areas, we brushed in crumb from shredded rubber tyres to keep them moving and we've had great results with that as well. I'm willing to try anything to keep them draining," he continued.

Of the two championship-standard courses at Slaley Hall, it is the Dave Thomas designed Hunting course which will see the action in June this year.

The course is challenging and long, measuring over 7,000 yards from the back tees and is considered one of the toughest tests on the European Senior Tour.

Steve went on to explain some of the changes made in preparation

for the tournament. He said: "The bands around the green, the surrounds, are cut at 7mm and then were up to 25mm on the areas out from that. The PGA wanted that lowering a little so it was a bit easier for the guys to chip onto the greens. So we've lowered that.

We've also widened a few of our approaches because some of them were previously quite narrow going into the green. We widened the 4th and the 18th so the players have

"The weather has been dreadful this year with almost continuous rain and even snow in the middle of April!"

a chance to run the ball on rather than fly it all the way to these tricky holes. The 18th is one of our most difficult so with it widened they can fly over the left-hand trap and get a bounce onto the green."

Tournament officials have also asked Steve to make some changes to help them as well as the players. Rhododendrons have been cleared





for this year's event in certain areas to allow for more accurate water hazard definition. On the 8th hole they have also been removed to provide a fairer, more visible landing area which will make one of the Senior Tour's toughest holes a little easier whilst helping considerably with pace of play.

The early June position on the schedule is a little early for the latitude and altitude of the course so Steve has had to bring forward his usual routines and programmes including verti-draining the greens and top dressing in March and verti-cutting regularly from then on. The fertiliser programme was also brought forward considerably to late February and has certainly paid dividends.

He added: "Unusually for a high profile televised tournament we don't close the course to general play until the Sunday prior to the event. Because we're so busy divots are a major issue so we do a lot of preparation work about six weeks before the tournament on the fairways and especially on the landing areas.

"We have ten full-time staff and two casual workers over the 36 holes."

Steve has prepared both courses for numerous European Tour and Seniors Tour events in the past. So does he still get a buzz preparing the course for a tournament?

"Oh yes! That's what it's all about and I think it tests you out. That's the way I look at it, to see how good we can make the course look with whatever conditions are thrown at us. Each year we strive to make it better."



The PGA Seniors Championship, is organised by the PGA, who along with BIGGA and the GCMA are jointly working together in the Golf Club Management Partnership, which aims to improve the interaction between all these who are involved in the management of golf clubs

Entry to the ISPS Handa PGA Seniors Championship is free if tickets are downloaded in advance, go to www.devere-hostels.com/pga-seniors

Win the ultimate golfing experience at Slaley Hall

This June will see the return of European Senior Tours flagship event, the ISPS Handa PGA Seniors Championship, to De Vere Slaley Hall in Northumberland.

Taking place over the venue's stunning Hunting Course from the 7th – 10th of June, the event promises to boast one of the strongest fields of the season.

We've teamed up with De Vere to offer one lucky reader the ultimate golfing experience, as the winner and guest receive a complimentary Sunday Driver at Slaley Hall. They will enjoy luxury accommodation at the stunning Slaley Hall Hotel and golf on the venues two championship courses, The Priestman and The Hunting.

For your chance to win this great prize, simply answer the following question:

Who won last year's PGA Seniors Championship at De Vere Slaley Hall?

- a. Barry Lane**
- b. Andrew Oldcorn**
- c. Ian Woosnam**

Please email your answers to comps@bigga.co.uk with your full name and membership number, by June 30 2012

www.devere.co.uk/golf

* Prize valid until end of October, subject to availability

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The revolving door on turf pesticide products

A series of articles aimed at a varying readership.

Advanced Level

If you're a Course Manager or Head Greenkeeper, read on...

A cohesively managed turf pesticide market started to evolve somewhat later than in agriculture where agrochemicals, albeit few in number, were already in full flourish as foliar sprays and seed treatments by the 1930's.

The turf chemical pesticide market has always been dynamic growing in product range and tonnage but more recently consolidating as increasingly tight environmental and safety legislation takes its toll across the board on fungicides, insecticides and herbicides.

Many 'household names' in turf's pesticide portfolio have already gone and the days of many more look numbered, but greenkeepers and groundsman can relax for the moment at least. Evidence suggests pesticide manufacturers are designing and developing new actives specifically for the turf market and much better targeted to provide superior control in smaller amounts.

The revolving door opening and closing on contemporary turf pesticides is not altogether logical. It certainly isn't always the case of oldest pesticides in being the first ones

out because hormonal herbicides like 2,4-D and MCPA, with pesticide pedigrees now approaching 75 years, are still widely used. The products may have changed with 2,4-D and MCPA now commonly used in two-way and three-way pre-formulated mixtures with other actives. However, at the end of the day these two 'household' herbicides have achieved their three score years and ten by continuing to provide good selective control of broad leaved weeds in turf, the job they were designed and developed to do in the 1940's.

There are many more products with a considerably shorter pedigree and commercial life span but already consigned to the history books. How many people remember the fungicide thiophanate methyl (a precursor of carbendazim) with systemic activity and heralded as a new beginning for disease control when it came onto the market in the 1970's. Thiophanate methyl was also a highly effective wormicide and gave short shrift to surface casting earthworms. However, all that was inconsequential when medical researchers found thiophanate methyl wanting on human toxicological grounds causing its

withdrawal from the marketplace more than five years ago after only 25 years use on turf.

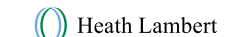
Different factors at work

The credentials of contemporary pesticides including those used on managed turf are under fire from four EU directives coming at the market from different directions and using different criteria. They are:

- Revision 91/414 Directive
- Water Framework Directive
- Sustainable Use Directive
- Machinery Directive

Revision 91/414 requires re-registration on a 10 yearly basis and forces manufacturers to face up to contemporary conditions and concerns around pesticide usage ten years on. And a lot can happen in one decade in today's fast moving arena of scientific research and public concern around the use of chemical pesticides. Toxicological research may have uncovered indications of endocrine disruption or carcinogenesis while environmental investigations may have un-earthed possible effects on useful soil organisms such as decomposers and natural enemies

Dr Terry Mabbett reports, with a high level analysis of pesticide products...



This article comes to you courtesy of the BIGGA Learning and Development Fund.

Thank you to all our key sponsors



ABOVE: 2,4-D and MCPA with their 70 year pedigrees are still used with other herbicides in pre-formulated mixtures for the selective control broad-leaved weeds in turf. Parsley piert (*Aphanes arvensis*) is the main weed shown here.

BELOW: Preserving and expanding biodiversity such as water margin plants is a top priority. Marsh marigold also called 'king cup' (*Caltha palustris*) is shown here.



or perhaps pollinating insects.

Chemical pesticides up for re-registration are invariably faced with more and higher hurdles to negotiate. Some are unable to meet requirements. Others can but the manufacturer faced with mounting costs of carrying out new trials and providing more data to the registration authorities may look at the cost benefit ratio and decide to let an active go. And turf being a relatively small niche market doesn't help, especially if there is no wider application in the much larger agricultural market. Perfectly good pesticides with many more years of safe and effective use in managed turf have already been lost in this way.

The Water Framework Directive is the watery grave for pesticides caught 'red-handed' at an excessively high concentration in ground water. High water solubility and soil leaching is clearly a disadvantage although other factors including widespread intensive use and run-off from hard surfaces are clearly critical. Use on managed turf is a 'red herring' because big use in broad-acre arable crops and weed control on hard surfaces are the two key factors that tend to trap pesticides in this watery grave.

Water flows where it wants to. Streams meandering across golf courses may have already passed through miles arable farmland where cereals and oilseed rape are intensively sprayed with selective herbicide and then afterwards hit industrial sites where total herbicide is sprayed on hard surfaces. When water is tested all that matters is the concentration in ppm (parts per million) of a particular herbicide (or insecticide/fungicide), with little consideration to exactly how it got there. This is clearly of no consequence to managed turf when a pesticide is purely agricultural in use such as the herbicide IPU which 'fell foul' of this directive, but a different matter if there is parallel use on managed turf.

As far as 'Sustainable Use' is concerned greenkeepers and groundsmen could reasonably be forgiven for believing this directive is custom-designed and targeted to specifically clobber the sports turf and amenity sectors. The Sustainable Use Directive targets pesticide use in public places (and those places used by the public) which is essentially what sports, amenity and leisure turf is all about.

The Machinery Directive immediately brings to mind the old adage 'there are more ways of killing a chicken than choking it'. This

directive deals specifically with the machinery and equipment used to apply pesticides and now requires every new turf and amenity sprayer to achieve certification to a required level of environmental protection before being released onto the market. Clearly there is no attempt to directly target pesticides but end result is the same. Without an approved application method there is no way of delivering a pesticide product.

Turf and amenity sprayers can be found wanting due to intrinsic design factors such as inappropriate droplet size and droplet size distribution causing spray droplet drift and high volumes of spray mixture leading to excessive run-off. Or manufacture and maintenance faults leading to leakage and nozzle drip.

Inherent design problems in hydraulic sprayers are being overcome by the design and development of a new breed of sprayers based on controlled droplet application from rotary atomization nozzles applying ultra-low volumes of spray mixture to eliminate run-off, and shielded or shrouded to completely eliminate the inherently minimal amount of droplet drift. Pesticide manufacturers are playing an important part too through on-going design and refinement of their own 'low drift' hydraulic nozzles.

Forward and lateral thinking

Some of the first turf pesticides to disappear many years ago did so for good reasons. A succession of insecticides applied to turf to control chafer grubs including organo-chlorine insecticides like chlordane and gamma HCH (lindane) and carbaryl (a carbamate insecticide) were unmitigated environmental disasters. To be fair they were doing a 'good' job (on chafer grubs) which became immediately apparent when the last of these was withdrawn but before imidacloprid (Merit Turf) was released onto the market.

For some years there was a gaping hole in the market and even bigger holes in turf up and down the country as chafer grubs severed grass roots. Rooks, crows, badgers and foxes finished the job by ripping up already loosened turf foraging for the grubs.

But the pendulum has swung the other way and pesticides that no-one thought in a million years would disappear or suffer from restricted use have fallen foul of EU legislation or suffered collateral



ABOVE: Even a small patch of Fusarium is enough to throw that vital putt off line (Photograph courtesy Syngenta)



LEFT: Worm casts will not be a problem as long as carbendazim is around

BELOW: Any potential effects on wildlife (wild mallard duck shown here) is a key consideration for the use of any pesticide

damage from high costs associated with re-registration.

Multi-national pesticide manufacturers are thinking ahead and laterally. Classic case is Syngenta which saw chlorothalonil, universally used over a long period of time as a contact fungicide, coming under scrutiny. By dispensing with chlorothalonil as a single-active product (Daconil) on managed turf, in favour of registration in a three-way product with fludioxonil and propiconazole (Instrata), Syngenta is helping to keep this valuable 'workhorse' fungicide alive for future use on turf, as well as in agriculture and horticulture. Any anticipated downside for turf disease control was more than compensated for by Syngenta's introduction of fludioxonil, as a brand new single active contact fungicide (Medallion TL) with a much superior overall profile.

Chlorothalonil is not the only pesticide to have lost some aspects of its traditional application and use and remained alive to fight another day. Carbendazim the last remaining wormicide approved for control of surface casting earthworms, and the mess they create on professional sports turf

including golf greens, was originally released as a turf fungicide for the control Fusarium patch and other turf diseases and a highly effective one at that.

Essential difference is there being nothing to replace carbendazim as a wormicide should it eventually fall by the wayside. It is inconceivable to imagine the registration of any other chemical to kill surface casting earthworms will ever be considered in future, either by legislators or commercial companies, irrespective of what will always be a clear need on professional turf. Earthworms are key soil fauna included in the increasingly broader and higher environmental hurdles erected for all types of turf pesticide.

New environmental mind-set and language

The example set by fludioxonil shows quite clearly the new era of thinking and language when it comes to chemical pesticides in the twenty-first century. Dosage was the traditional language used to describe the label recommended amount of pesticide required to control the pathogen, pest or weed,



with these targets clearly at the fore-front of thinking. Not so now with contemporary terminology changed to 'loading' and the environment now uppermost in mind and consideration.

Big plus point claimed for fludioxonil is an efficacy as good if not better than chlorothalonil but with a loading which is ten times less. On a weight for weight basis fludioxonil weighs in with loading of just 375g a.i. (active ingredient)/hectare (ha) compared with around 5000g a.i./ha for long established contact fungicides like chlorothalonil and iprodione with their 30-40 year pedigrees on turf.

The manufacturer as much anyone else now regards chemical pesticides as intervention agents rather than foundation products for turf pest, disease and weed control. The latter is increasingly seen as the function and responsibility of the myriad of living organisms and their biological systems in the root zone and thatch.

Around this new thinking is growing a whole new field and industry encompassing biological control and natural soil systems designed to set the nutrition and health agenda on and under turf. Integrated pest and disease management is the name of the game but the essential meaning of 'inte-

grated', which was coined and used in agriculture and horticulture long before it became established in turf, is inclined to get lost.

In this context 'integrated' means using everything at your disposal including where necessary chemical pesticides but only in highly interventionist and targeted ways for minimal impact on natural biological systems in the root zone and thatch. Be that as it may, there is increasing pressure within the industry to dispense with the use of all chemical pesticides.

Proponents of pesticide free turf wax lyrical about what is happening on and under the turf as though they are actually there observing these complex and often microscopic systems at work. Danger for greenkeepers, who clearly want to do right by the environment, is to 'sign the pledge' on pesticides and embark on a course of chemical pesticide-free golf course management. And then find it is practically impossible to achieve depending on the situation – e.g. location, local topography, level of wear and tear on turf and the expectations of club management and members.

Being wedded to organic (no chemical pesticide or synthetic fertilizer) turf management is not much fun and consolation when birds and badgers are tearing up

your turf because there is an infestation of chafer grubs underneath the grass that requires prompt intervention by chemical control. A biological control product based on entomopathogenic nematodes may suffice if both time and temperature are on your side otherwise chemical control is the only option.

Even a tiny patch of *Fusarium* or a wobbly grass tiller with its roots cut by chafer grubs is enough to throw that vital putt off line. Some greenkeepers have already paid the ultimate price for doing the 'right green thing' on their golf course but not according to their management and members.

An entire golf course covers a huge area in relation to the 18 greens where the 'make or break' of the game of golf tends to occur. Surely there is a sufficient area out there for the biodiversity-driven pesticide-free course management we all want to see, while allowing the greenkeeper a large measure of leeway on his greens.

To criticise greenkeepers as environmentally unfriendly for spraying greens with fungicide to fend off *Fusarium*, spreading insecticide granules to kill chafer grubs and applying wormicide to prevent worm casts is highly hypocritical given the amount of synthetic turf elsewhere in the sports sector.

The Water Framework Directive is already becoming a watery grave for significant numbers of herbicides



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For further information, contact the Learning and Development Department on 01347 833800 Option 3.



JOHN DEERE



syngenta



HAYTER



Keeping heather on course

For West Hill Course Manager, Ben Edwards, heather regeneration is a passion and golf greenkeeping a way of life, as MIKE BEARDALL reports

BEN EDWARDS is one of those individuals you immediately empathise with as a sportsturf professional.

As Course Manager at West Hill Golf Club, a Surrey heathland course near Woking, he has very rigid criteria for maintaining the course “to the very highest standards possible.”

At the age of only 31 he has certainly fast-tracked in greenkeeping, becoming a course manager when he was only 23 at Sand Martins Golf Club in Berkshire.

West Hill, an 18-hole course founded in 1909, is kept looking incredibly smart. “It has to be at its best, as a good advertisement for the club and for the greenkeeping staff,” says Ben, who has been at the club for a year and a half.

His current demanding job is a far cry from his original plan as a teenager to join his father in his printing company in London.

“After three hours of driving every day I just decided there had to be more to life,” says Ben, who now lives only 20 minutes away from work at Binfield in Berkshire.

“I went off to America at 18 to work with a friend running a pool-cleaning business and started playing golf most days. That’s when I developed a deep affection for the world of golf.

“When I came back to Britain I saw a job advertised for a trainee

greenkeeper at Sand Martins Golf Club and applied for it. I have never looked back.

“After 18 months I was made deputy course manager and at 23 became course manager. I know I was young but I took it very seriously and went on training courses at Merrist Wood College in Surrey and joined BIGGA. I was fortunate to be given the opportunity at such a young age and owe a great deal to Andrew Hall, the owner of Sand Martins Golf Club.

“I think I have only missed one Harrogate show in all that time and I have been to the US shows for the last six.”

West Hill Golf Club is a typical Surrey heathland course with the lucky advantage, in times of drought, of having two boreholes from which the club is allowed to extract water for irrigation.

“The Environment Agency simply asked us to cut down a little during the drought period,” says Ben, who says the club is planning to build a reservoir to further help with irrigation and sensible water use.

A sprinkler system is controlled from a central computer which Ben can operate from his mobile phone, using data supplied from the on-course weather station.

The course is on typical clay-sand for the area and, ironically, suffers from wet greens which Ben is tackling through a programme

