



PLAYER SURVEY SPECIAL

Unlocking golf's true potential

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Getting more golfers to play

The number of people playing golf in the UK could be doubled if clubs and courses were friendlier, encouraged families and offered greater flexibility and better playing conditions, according to findings from a new Syngenta survey.

'Growing Golf in the UK' canvassed the opinions of more than 3,500 UK residents, including 1500 golfers and over 2,000 non-golfers. It revealed the huge latent demand for golf

in the UK, with an estimated 8.5 million people interested in taking up the sport – twice as many as currently play the game.

Of the non-golfers interviewed, two-thirds said they were looking for a new or additional sport or hobby, with 55% saying they had enough time for golf.

However, the research also highlighted the reasons why golf faces challenges maintaining its



Simon Elsworth, Syngenta Head of Turf and Landscape EAME

▶▶ New research into golfers' attitudes towards courses, playing conditions and social enjoyment will help the game evolve and deliver long-term commercial success. The findings give invaluable insight into the positive future for clubs that are willing to adapt.



Attracting young players is essential for the game's future.

existing customer base. Of the golfers interviewed, up to 50% feel intimidated by club rules, regulations and even members of staff - with 25% recalling no experience of being treated like a valued customer. Almost two-thirds (65%) said they would consider leaving their club or regular course.

The shortfall in female participation in golf, and the potential for more women and family golfers, was also highlighted in the research.

Simon Elsworth, Syngenta Head of Turf and Landscape EAME,

said: "The purpose of the survey was to better understand the sustainability of the UK golf course industry, from a social, business and environmental perspective.

"What we've found is that there is very significant latent demand for golf that could be realised if clubs and courses were able to promote themselves in a friendlier, flexible and family-orientated way. Ultimately, people want to relax, be treated as a valued customer, share time with friends and family and enjoy a healthy sport in an appealing, outdoor environment," added Simon.

Understanding players needs

▶▶ The global economic downturn of the past five years has focused attention on the long-term business sustainability of individual golf courses more than at any other time in the game's history, according to

Syngenta Turf Business Manager, Rod Burke. The result is that courses have become more aware of who their customers are, and the importance of taking a customer-centric approach to their operations.

The Syngenta golf surveys have underlined how important golf course conditions are to golfers, and how players' wants and needs will help shape golf courses in the future.

According to the research, golf course design is the most important factor in attracting golfers to visit a new course. However, it is the condition of the playing surfaces that can give them the greatest satisfaction when they are there.

The research found golf course design tended to more important to men than women, although women tended to put greater importance on environmental issues. Design is also a more important factor among younger golfers.

In contrast, clubhouse factors, including ambience, food and drink service, shop merchandise and buggy availability, all fell in the lowest six ratings.

The implication is that if you have a capital sum to invest,

Implications in practice



Eric Brown
Global Head of Marketing, Syngenta Turf and Landscape

Colin Mayes
Burhill Chief Executive

▶▶ In an interview at the KPMG Golf Business Forum 2013, Eric Brown of Syngenta shared the key findings of the company's latest research on golf participation in the UK with Colin Mayes, Chief Executive at Burhill Group Limited (BGL).

Eric Brown: Syngenta is committed to the game of golf, and we really need to understand our customers and, from time to time, our customers' customers, so we can have a deep understanding of the market place.

The first thing that struck us was that there was no place for complacency in this market. Some 25% of the respondents said that they could not recall an experience where they were treated as a valued customer, with 65% of respondents said they were considering leaving their golf course or their regular club.



Golf must focus on the needs of all players

Colin Mayes: It is very worrying that so many are considering leaving their clubs. We have got to understand that we are in the hospitality business, and that looking after all members of the family in all aspects of managing the club is an extremely important aspect.

EB: The family was a thread that ran through the entire research. Playing golf with friends and family was important to both males and females; but most important to females. Only 10% of golfers in Scotland are female, for example, yet the research shows that of the

females that do play, around half of them are likely to bring along children with them.

These are two issues that the market is facing; how do we bring youth into the game and how do we be more welcoming to get more females to play more golf?

CM: We think the family market is very important to our business. We've really recognised that in the last few years. We've also got to remember that the females are a big decision maker in where the leisure pound is spent.

Most of our clubs have got major activity programmes for children, which brings mothers and parents into the club houses. We've introduced an 18-hole adventure golf course, aimed primarily at the family, and particularly as something to bring the children to.

Our pay and play facilities now feature a café, bar and restaurant, so it's really trying to make sure that it's an all-encompassing

experience area. We get a lot of mothers coming in for a chat having dropped off their children at school. Our task is to get them interested in the golf game.

EB: Accessibility certainly seemed to come through in multiple initiatives. It was about new players getting quick and affordable access to lessons to get up and running; and not feeling intimidated by the club. And actually relaxed dress code came out high as well.

CM: The other very positive figure is that latent demand, and is a real encouragement to us all in the golf business. This research tells us that there is an awful lot of people out there willing to get engaged with the game of golf.

A video of the full discussion between Eric Brown and Colin Mayes first appeared on www.golfbusinesscommunity.com



Delivering smooth rolling greens is key to a successful course and club

Turf Science Live

▶▶ Making the very best use of every input on the golf course was the key message at the annual Turf Science Live event, held at Wentworth Golf Club.

The two-day event, co-presented by Syngenta, Evertis and Ransomes Jacobsen, attracted over 170 visitors. It provided golf course managers and greenkeepers with the opportunity to see the latest research and technical innovations in turf technology.



New research on soil-borne disease timing

▶▶ Soil borne diseases are now more prevalent and more troublesome than ever, with calls to adopt new approaches to control their spread and prevent further damage.

Speaking at the Turf Science Live, Dr Simon Watson pointed out that many of the spring Take-All Patch outbreaks may be as a result of infections and conditions that occurred in the previous autumn. "In these instances the conventional treatment fungicide timings, in June and July, may be too late to give the optimal control," he warned.

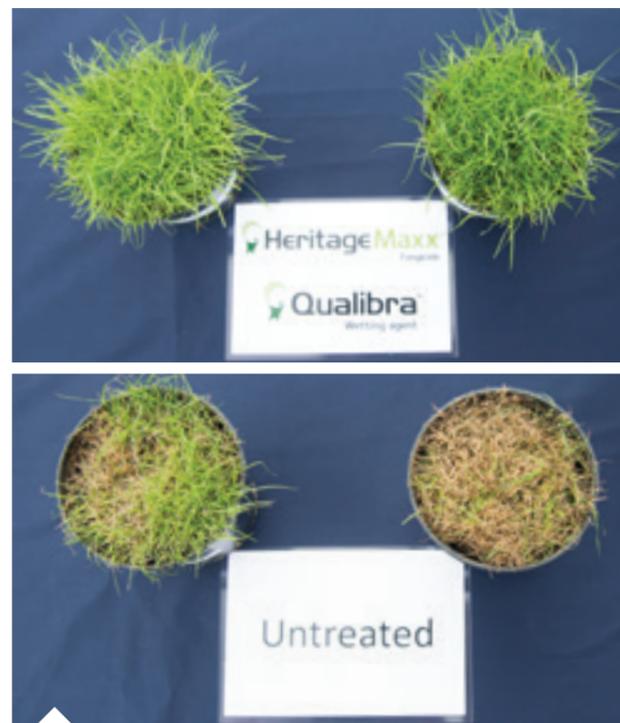
A new research project is now looking at the potential for Heritage Maxx treatments in the early autumn, targeted at areas of known infection and regular Take-All Patch outbreaks. The aim is to reduce the pathogen loading early and break the disease cycle.

Additionally, the trials will look at field evaluation of new Syngenta Jealotts Hill research

that has shown significant improvements in movement of fungicide into the target area from the addition of Qualibra in the tank-mix with Heritage Maxx, and the use of irrigation as soon as possible after application.

Simon advocated that the new autumn treatment timing research would be combined with a follow-up spring Heritage Maxx application, along with being integrated with a Qualibra wetting and water conservation agent programme to minimise the risk of the root zone drying out.

The new Take-All patch programme would also be fully evaluated against Fairy Ring infections.



New techniques demonstrated by Dr Simon Watson and Dr Louis Simard, using Heritage Maxx and Qualibra to counter the increasing risk of damage caused by Fairy Ring and Take-All, also highlighted the combined beneficial effects to reduce turf stress and enhance plant health.

▶▶ TOP TIP for soil-borne disease control

- Identify and map areas of soil-borne disease – regularly track any changes
- Apply treatments using Syngenta XC Soil Nozzles
- Use reduced water volume for more timely application
- Irrigate as soon as possible after application
- Use Heritage Maxx in conjunction with Qualibra

Primo Maxx shines light on shaded tees

▶▶ New Primo Maxx research demonstrated at Turf Science Live has shown programmes can help plants fully compensate for a 25% reduction in light levels, according to Rod Burke of Syngenta. This could transform performance of shaded tees and greens.

"Shaded conditions create a cascade of effects that all adversely affect turf strength and plant health under managed turf situations," he warned. Furthermore, the process creates more free radicals within the plant leaf structure, which again makes it more susceptible to stress.

Primo Maxx treated plants have a greater concentration of chlorophyll in the leaf, which results in more photosynthetic activity to promote healthier plants. Treated turf also has an elevated level of cytokinins which help to reduce effects of stress within the leaf and make plants more tolerant of issues such as drought, wind and wear damage.

"Primo Maxx is the only turf growth regulator proven to give up to 40% increase in plant carbohydrates in shaded conditions," added Rod.

Further Turf Science Live trials, on a treated shaded tee at Wentworth Golf Club's Executive Course, highlighted the benefit of increased turf density, colour, ground cover and overall health from greater frequency and rates of Primo Maxx application.

"Greenkeepers should aim to mitigate the causes of shade to minimise the effects," advised Rod. "But where tees and greens are cast in shade for all or part of the day, the use of Primo Maxx programmes can play a valuable role in enhancing turf health and playing conditions."



In trials conducted by Harper Adams University College turf PhD student, Harry Mbah, untreated turf grown in partial shade produced a measured light reflectance reading of 341, compared to 390 for untreated turf grown in full sunlight. However, turf plots treated with Primo Maxx also produced a light reflectance of 390 - indicating the same vigour, density and photochemical activity as untreated turf in full sunlight.



▶▶ Karl Parry, Course Manager at Denbigh Golf Club, Pembrokeshire, presented research findings from his project using Jacobsen's Eclipse 322 hybrid greens mower to change the frequency of cut in order to enhance the trueness and smoothness of ball roll – the factors he cited from the Syngenta Player Survey that are key to golfers satisfaction.



▶▶ "Turf Science Live is, for me, one of the most valuable days out. It's great to hear about the latest ideas direct, and how we might implement them on the course. I would always recommend a visit to anyone who has the chance to attend."

Stan Power, Golf and Estates Manager, Hanbury Manor, Herts



▶▶ Evertis' Henry Bechelet highlighted work with Kenny McKay (left) and the Wentworth greens staff to monitor playing surface

conditions closely in the run up to in this year's BMW PGA Championship, to achieve more consistent and firm greens.



▶▶ "Attending Turf Science Live is a benefit for me. It gets me questioning 'am I doing things well?'; have things changed technology wise; have things moved on from the way we have been doing things in the past? Innovation drives change for the better."

Peter Todd, The London Club, Kent



▶▶ "Greenkeepers and turf managers are being asked to do more with less. All three partners in Turf Science Live are investing heavily in the research and development to help you achieve it."

David Withers, President Jacobsen

Read full reports from the Turf Science Live demonstration stations on www.greencast.co.uk

The people that bring the golf course to life

OPERATION
POLLINATOR
Special



With these new techniques we have the opportunity to produce a better course for players, manage costs more effectively and create a more attractive environmental asset.

Jaey Goodchild, Head Greenkeeper, Bowood Golf Club

Our experience shows that Operation Pollinator could work on every golf course, and would add a beneficial feature for the environment, the greenkeeping team and the players, as well as the golf industry as a whole.

Simon Winters, Deputy Head Greenkeeper, Ely City Golf Club

The new habitat has been alive with the buzz of bumblebees and other pollinating insects. As we establish more wildflower areas it will add to the experience of playing in a natural environment.

Steve Thompson, Greenkeeper, John O'Gaunt Golf Club



▶▶ In the 20 years since the golf course construction at Bowood Golf Resort, near Calne in Wiltshire, the rough alongside the manicured fairways has become dominated by thick agricultural grasses, including Ryegrass and Yorkshire Fog.

Enhancing golf and the environment

Thick rough severely penalises even slightly wayward shots and slows up play as golfers search for balls lost in the dense rough. Furthermore, the wildflowers sown at the outset have been shaded out by the coarse grasses and failed to provide the intended visual attraction or fulfil their real value for insects.

Using a programme of rough management involving the use

of Rescue, along with cutting and scarification, Bowood Head Greenkeeper, Jaey Goodchild, aims to remove and manage the invasive coarse grasses, allowing the desirable fine fescue species to flourish.

The resulting thin and fine grasses will be far easier to manage in the future - which will be faster, less costly and less intrusive on play. At the same time, with the dense



Jaey Goodchild (right) with entomologist, Mike Edwards



▶▶ GOLF PRO'S VIEW

Bowood PGA Head Professional, Paul McLean, added:

"The playing quality of the course is undoubtedly the imperative factor for most golfers. But where improving playability will also bring environmental and design enhancements, it is a benefit for all involved."

He highlighted that today's golfers are demanding faster rounds and are increasingly frustrated by delays caused by slow play. "Most players are intimidated by the dense rough and the fear of straying off the fairway; even low handicap golfers are forced to play more conservatively."

"It is an exciting proposition if we can ultimately create a challenging course design, and a wonderful environment in which to play."

cover removed, the wildflowers have been given the chance to proliferate that has provided a riot of colour and renewed insect activity.

Jaey's aim is to use the new techniques alongside the fairways and play-lines that will introduce new challenges for

golfers, and then continue to enhance the environmental and aesthetic value across wider areas in future years. "With these techniques we have the opportunity to produce a better course for players, manage costs more effectively and create a more attractive environmental asset," he added.

Operation Pollinator study reveals insect life on course



▶▶ An extensive study by leading independent entomologist and ecologist, Mike Edwards, on some of the golf courses involved in the Syngenta Operation Pollinator initiative across the UK, has catalogued the diversity of insect species present, and the habitat potential to increase both the numbers and range of insect species.

"Whilst some individual golf clubs already have areas of outstanding interest for wildlife, there remains a large number where the potential to make a real contribution had yet to be realised," advises Mike.

"All too often potentially valuable areas have sadly been un-managed and of limited ecological value," he said. "Providing expertise and support in restoring such flower-rich grasslands with the Syngenta Operation Pollinator initiative can make a major contribution to the conservation of our flora and fauna."

The discovery of *Bombus ruderatus* (pictured above)

on Rutland County Golf Club was an especially exciting discovery, since the species was considered on the verge of extinction just a few years ago - "It is a classic case of when you put the habitat back, bumblebees and other pollinating insects are given the chance to recover," reported Mike.

Rutland's Head Greenkeeper, Jamie Goddard, added: "Finding the rare *Bombus ruderatus* highlighted the ecological value of the golf course. Now we can actively manage areas to make them even more attractive for bumblebees and other pollinators, alongside a great course for players."



Simon Winters with Caroline Carroll of Syngenta

Colourful attraction at Ely

▶▶ The Operation Pollinator wildflower areas established at Ely City Golf Club have generated more comments from members over the summer than all the rest of the course - and all of it positive, reported the club's Deputy Head Greenkeeper and environmental champion, Simon Winters.

He believed a key aspect of its success has been the highly visible location of blocks selected for wildflowers, which means players are fully immersed in the colour and buzz of insect activity in the clearly signposted areas. Secondly, the decision to sow a mix of flowering annuals in the first year has created a blaze of colour and an instant response in pollinator and insect numbers.

"The annuals have worked incredibly well and proven a

big attraction for insects and players, but they will need to be recultivated and sown each year. Developing areas of native perennial wildflower mix will add ecological diversity and a more natural appearance, and will also be easier to manage in the long-term," added Simon.

"Having got the members engaged with the initiative and its objectives, and demonstrating quickly what could be achieved, they are very keen to see it extended."

Sprayer test to pinpoint accurate application



▶▶ A national sprayer testing scheme is set to be introduced across the amenity and landscape sectors within the next three years.

The benefit of more accurate application through a well maintained sprayer and avoiding further problems will more than recoup the charge, believes Syngenta Application Specialist, Tom Robinson. When the Agricultural Engineers Association instigated the

Sprayer Test Scheme for farm sprayers in 1997, a quarter of the sprayers tested failed during the first two-year round of inspections. Of those, a third (33%) failed with worn sprayer nozzles, which made accurate application impossible to maintain.

Furthermore, changing the nozzles now enables operators to take advantage of the latest developments in Syngenta XC Turf Nozzle technology for turf applications, he added.

New XC Nozzles

The latest addition to the Syngenta Turf XC Nozzle range - the 025 Foliar nozzle - is now available. Specifically developed to operate at slower speeds for greens and tee applications, the nozzle design incorporates the full innovative XC technology, to give even coverage on sloping ground, reduced drift, improved all-round treatment of the leaf surfaces and a low water volume capability.

Spraying at lower water volumes typically increases spray and product retention on the leaf surface, as well as enabling greater sprayer output per fill for improved timeliness of application and less disruption to players. The 025 Foliar Nozzle would typically apply 220 - 440 l/ha spraying at 3 to 4 km/hr.

For further information visit the GreenCast Application Zone at www.greencast.co.uk



▶▶ Turf rooting in Croke Park in Dublin has more than doubled this season, reports the stadium's Pitch Manager, Stuart Wilson. The introduction of Qualibra wetting agent and deeper aeration are achieving a more even distribution of soil moisture through the pitch profile that has encouraged deeper root growth.

Deeper rooting for Croke Park turf

Stuart Wilson recalled they had been struggling with roots being restricted to 60 - 70mm depth. "But after just five months of the Qualibra programme roots were reaching down to 120 - 130mm. That will help to make the turf surface more stable and resilient to damage, as well as giving us far greater flexibility with irrigation and nutrition. Overall the plants are healthier and stronger."

According to Stuart (pictured right): "The aim of using Qualibra has been to move the water down from the surface to keep that firm, but then retain moisture deeper and more evenly through the sand/fibre mix. That means roots are being encouraged to grow in these more favourable conditions - which has the effect of improving the uptake and utilisation of both water and nutrients."

Already he reports they have been able to reduce irrigation inputs, and will be looking to closely evaluate the nutrition programme to precisely match the turf growing requirements. So far he has been using monthly applications of Qualibra, which is now planned to continue to be used right through the year.



Pitch quality on a roll

▶▶ Football pitch and sports turf managers could look at some of the techniques used by greenkeepers to further enhance the quality and cut the cost of maintenance, according to Alan Ferguson, Head Groundman at the FA's flagship facility, St George's Park.



Alan Ferguson & turf roller

Speaking at PitchFocus earlier this year, Alan reported one of the latest innovations has been a trial to alternate mowing with a turf iron roller, compared to the conventional daily cut. The

intention had been to create a more consistent playing surface and greater ball speed off the top, but he had also identified improvements in turf health and valuable time savings.

He highlighted that rolling took half the time of cutting with a pedestrian mower, which has released time to undertake other essential pitch maintenance operations. Alan (left) believed that, used in combination with Primo Maxx, rolling had alleviated stress on turf plants, which had led to better surface density, greater wear tolerance and faster recovery after intense training sessions.

"I've always seen Primo Maxx as instrumental in increasing root density, enhancing plant health, improving shade tolerance and aiding the overall management of pitches," he said. "Used in conjunction with alternating rolling and mowing,

it fully utilises the potential to produce more consistent surfaces all season and further increases the proven time savings.

"We are now looking to integrate turf iron rolling within the overall management regime," he added.



Preparing the perfect pitch

▶▶ "The pitch is the foundation for everything commercial that goes on at the Club. Success on the pitch is integral to success off it, so it is essential we give the players the surface on which they can perform".

Jason Booth, Head Groundsman, Headingly Stadium



▶▶ SPOTLIGHT on winter pitch Primo use

The increasing use of artificial lighting rigs in football and winter sports pitches has transformed playing conditions through the season, with stronger turf growth and retained grass cover. The technology has enabled groundsmen to effectively counter the dark shadows cast by tall stands and stadia, as well as excessive wear in goalmouth areas.

And the results could be further enhanced by maintaining a Primo Maxx programme right through the playing season to make better use of both available natural light and supplementary artificial lighting, advised Syngenta Technical Manager, Dr Simon Watson. He also highlighted that the stronger plants and greater root mass stimulated by Primo Maxx further improve surface stability and wear tolerance, as well as the turf's ability to recover faster after play.

Act early to stop disease damage

▶▶ A recent survey of greenkeepers showed that 95% of courses are affected by autumn or winter disease on greens, with over half of courses reporting problems every year.

To redress the issues and minimise the risk of disease attacks this winter will require proactive fungicide treatments - with healthy turf best placed to respond positively to preventative fungicide applications.



Medallion movement

New research has shown that earlier applications of Medallion TL can be especially effective in preventing disease outbreaks, advised Dr Simon Watson of Syngenta. One key factor is the reduction of Microdochium pathogen in the thatch, which lowers disease pressure and delays the onset of any attacks.

"Furthermore, studies have shown that there is some root uptake and movement of the Medallion TL active within the plant from earlier applications in the autumn," he reported. "That could be further contributing to the long lasting results."

Greens that are being actively managed to reduce thatch organic matter will further benefit from the lower levels of disease pathogen, and best placed to get the longest possible protection from fungicide treatments, he added.

Simon cited trials at Birch Grove Golf Club in Essex, where Medallion TL applications in mid and late autumn effectively eliminated any incidence of Microdochium Patch for 90 days after treatment, yet over 25% of turf was affected by the continual build-up of disease on untreated area.



Root uptake of Medallion TL and targeting disease pathogens in the thatch will lower infection risk and give long lasting results.

"It also reiterated application during periods of high risk is crucial to prevent the disease pathogen developing and infection breaking out," he advised. "Over 50% of greenkeepers questioned were using the GreenCast disease forecasting system to help identify periods of disease risk."

Follow www.greencast.co.uk to predict disease risks on your turf this winter and effectively target fungicide timing to prevent damage.

GPS gets spray spot on

▶▶ Ely City Golf Club is pioneering a step change in spray application accuracy, with a new system that uses GPS satellite guidance to automatically switch nozzles on and off to deliver more consistent coverage. The club's course manager, Andy Baker, reported it is already delivering better results for turf quality, more efficient use of inputs and cost savings.



Andy Baker

Using the **Müller Track-Guide** he has accurately mapped the perimeters all the course's greens, fairways and tees, such that the sprayer automatically switches individual nozzles on and off to only treat the designated areas.

Furthermore, as the required area is sprayed it is tracked on the display screen map and, if the boom passes over an area that has already been treated, the respective nozzles are automatically switched off - avoiding wasteful

over-spraying. The screen display also shows any area that may have been inadvertently missed, enabling the operator to automatically fill in any gaps and assure complete coverage.

Accurate area mapping

Andy highlighted that before the course was accurately mapped when setting up the system for the first time, they had worked on the application area of a

1.2 hectares for greens and 10 hectares of fairway. In fact, they discovered the actual area was 1.0 hectare of greens and nine hectares of fairways.

"In the past we may have been over-dosing some areas by 10% or more and overspraying surrounds which don't need spraying. That has already bought us cost savings by being more accurate, and avoided waste," he advised. *"Under-dosing or missing patches*

during application would have meant reduced efficacy or increased risk of disease."

Andy reports that on irregular greens and variable width fairways the system has proven an absolute godsend in avoiding overlaps and targeting sprays exactly where required.

Time savings

The system has also brought about significant time savings; all 18 greens could now be treated in just an hour – half the time that it took in the past. The entire course can now be easily sprayed in less than a day, resulting in less disruption for players and assuring proactive fungicide treatments or the Primo Maxx programme across the course can be completed at the optimum time.

Combined with the drift reducing Syngenta XC Nozzles fitted to the sprayer and used for virtually all applications, Andy reported they have been able to manage the weekly spray programme far more effectively in the available spray windows. *"It's all about giving a good operator better tools to get more reliable results and help to deliver truly accurate application,"* he concluded.



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