

Turf Talk

SUMMER 2011

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Quick link to GreenCast Mobile



Take GreenCast out on the course with you and access the GreenCast mobile website by scanning this with your mobile phone using a QR Code reader application.

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Investing in turf

In times of economic crisis it's tempting to cut costs and cut corners, but investing in turf and turf managers is more important than ever. Higher quality turf will always attract more players.

In this issue of Turf Talk we highlight some of the areas where good greenkeeping and

turf management can provide a positive boost to Club funds, along with practical ideas to maintain better turf more economically, and to keep players of all sports coming back for more.

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Ultimate Fairway Package



The Ultimate Fairway Package aims to reduce the cost of fairway management and improve course conditions to attract more players.

Greenkeepers have the opportunity to make huge savings in fairway management costs this season, and create better playing conditions – thanks to a great offer from Scotts and Syngenta that has brought the dream of Primo Maxx treated fairways within the financial reach of all golf clubs.

The Ultimate Fairway Package offer is available as an 18-hole pack that provides a season-long supply of the complimentary Primo Maxx plant growth regulator and Sportsmaster WSF High N water soluble fertilizer.

The Package is designed to enhance the quality of fairway turf and course condition, along with easing management costs over the season. At a promotional cost of just £2,965 for the 18-hole pack, including 40 litres of Primo Maxx and 36 x 15 kg bags of Sportsmaster WSF High N, it now makes it a viable option for all clubs.

Extra savings on offer

Scotts' National Key Accounts & Development Manager, Ed Carter, believes the package offers golf clubs significant savings over and above the purchase price of the products. "As we move into the growing season, the benefits associated with using Primo Maxx on fairways are extremely valuable.

"The mowing requirement on treated turf may be reduced by up to 50%, leaving greenkeeping staff free to complete other essential turf management tasks. Reduced

mower operating hours results in the use of less fuel and lower maintenance and repair costs, along with the potential to extend the working life of expensive capital equipment," he advised.

"However, the principal benefit is the improvement in the quality of the turf. As well as being more drought-tolerant, the denser, greener and more durable sward enhances the playing experience. This provides clubs using the Package with the exciting opportunity to increase membership and revenue."

Balanced nutrition

Ed added that Primo Maxx is paired with Scotts' Sportsmaster WSF High N - a new water soluble 35-0-14 fertilizer with a mixed Nitrogen source to optimise uptake and chelated iron for enhanced colour. "Sportsmaster WSF contains TMax technology, which improves nutrient uptake from the leaves and the roots. The tank-mix combination with Primo Maxx saves application costs and is designed to keep turf plants strong, healthy and looking as good as possible throughout the season."

The treatment programme will typically involve treatments with a tank-mix of both components at four to six week intervals.

“

It's important to commence applications when the turf is actively growing” Ed emphasised. “The rate of Primo Maxx used should be adjusted for turfgrass species and growing conditions. Your local distributor or Scotts Technical Area Sales Manager will be able to provide you with any advice you need on achieving the best results.



Ed Carter, National Key Accounts & Development Manager, Scotts Professional.

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Accurate application included

Ed highlighted the Ultimate Fairway Package will also include a set of Syngenta Turf Foliar Nozzles.

"Accurate application is vital in achieving optimum results from any product. We have included the Syngenta Turf Foliar Nozzles in the package as they are specifically designed to produce the optimum droplet size for turf leaf

coverage, while maximizing spray retention on the leaf," he said.

"Its design delivers 75% more droplets per millilitre of spray, compared to an equivalent standard air induction nozzle, and will significantly reduce drift compared to conventional flat fan nozzles – providing more spraying opportunities"

The nozzles fit on to the existing bayonet housing on virtually all modern sprayers and will be equally valuable for all fungicide applications too.



Look out for the 'Ultimate Pitch Package' coming shortly

Course quality keeps players coming back



Course condition is the primary factor for member satisfaction and attracting new players.

- Just 1% increase in membership – or better membership retention – is worth an average £5,000 a year for a club.
- Only five extra rounds a week, for visitors attracted by better playing conditions, could be worth over £15,000 a year for a club.
- Sport England surveys show a declining number of participants in golf over recent years. Maintaining the course in the top condition, from tee to green, is a club's best chance to capture a greater share of the players' spending power.

Golfers have more choice and options than ever before. And they always want to play where the course conditions are best, according to Syngenta Turf Portfolio Manager, Rod Burke.

“

Overall course quality drives the golfers loyalty to a club. The focus should be on delivering the best possible playing conditions from tee to green. ”

He highlights a survey by Golf Business Magazine that revealed overall course condition was the single most important element in maintaining high club loyalty and membership.

Other factors in the clubhouse and environment are important aspects of the whole golfing experience, and individual components do make a difference - especially greens quality. But overall turf quality and course condition has the biggest impact for players, he reports.

clubhouse and golf shop spend declining sharply in the current economic conditions," reports Rod. "Priority must lie in providing a consistently high quality playing experience out on the course, to maintain players' satisfaction."

From a financial perspective, just 1% increase in membership – or better membership retention – is worth an average £5,000 per year for a club. And a 3% increase in visitor green fees could be worth over £15,000 for a club with 25,000 rounds a year.

Rod believes the increasing availability of open play courses and attractive visitor packages has created a new 'migrant golf community'. Presenting the best possible playing conditions and turf quality every time is crucial to keep them coming back.

"Club green fees and membership subscription is now an increasingly higher proportion of club income, with post-game

Turf Science Live is back for 2011

Following the resounding success of Turf Science Live last year, a second event is planned for summer 2011 – with an exciting and stimulating new range of topics and projects that will be the future of turf management.

Turf Science Live offers a unique opportunity to look at tomorrow's world of turf management, today. Join us to find out the very latest

innovations in turf agronomy in practice and discuss its implications with the scientists and researchers involved with their development.

The practical format allows visitors to get involved, ask challenging questions and discuss with others how ideas could be implemented on their own turf.



Operation Pollinator brings the golf course to life

Operation Pollinator is set to rescue the fortunes of the humble bumblebee across UK golf courses – and provide golf clubs with an attractive new feature to encourage more members.

With the potential to also manage out-of-play rough more cost effectively, Operation Pollinator is a win-win for clubs and the environment, according to Syngenta Turf & Landscape Manager, Simon Elsworth.

He believes helping to resurrect bumblebee populations will prove that golf courses can be managed in harmony with the environment and give both the players and managers immense pride in their club. "Golf courses provide ideal locations for habitat creation. With the right management these areas have proven to provide outstanding habitat for bumblebees and other pollinating insects."

Up to 500 golf courses are being sought to join the new national scheme over the next three years, with each committed to establishing at least a half a hectare (5000 sq m) of specific Operation Pollinator seed mix, rich in pollen and nectar food sources especially designed to encourage bumblebees and pollinating insects.

Working with STRI ecologists, Operation Pollinator provides guidance on the integration of environmental features alongside existing course management, along with the

necessary skills and training to successfully establish and manage the habitat cost effectively and to gain the optimum ecological value.

Attractive club benefits

Simon highlights that greenkeepers' and course managers' involvement in Operation Pollinator will bring significant benefits to their clubs. In addition to the immense pride generated in the course, the habitats enhance the overall playing experience. The wildflower areas improve visual appearance and it creates valuable positive publicity for the club.

Julie Morris, Secretary at Fulford Heath Golf Club near Birmingham fully recognises the value of environmental credentials as a positive attraction for the club. "In this 'green' age, our involvement with ecological projects is a great selling point for the club. If we can provide a habitat for endangered species and enhance the natural beauty of our course by planting wild flowers, which then attract members and visitors to our club, then Operation Pollinator offers a win-win situation."



Bumblebees are one of the key indicator species set to benefit greatly from Operation Pollinator habitat establishment.

Bob Taylor, Head of Ecology and Environment at STRI reports results from the Operation Pollinator trials (above, right) should prove extremely valuable to help other courses establish and manage wildlife rich habitats.

He believes the management practices developed to deliver pollen and nectar rich habitat for bumblebees will be hugely beneficial for other flora and fauna on the golf course.

For further information, and to download a brochure - please visit: www.operationpollinator.com/golf

“Improving habitat conditions for bumblebees will represent an important environmental gain with little or no detriment to the playing of the game. It is hoped that this work will generate a wider acceptance and awareness of golf's positive environmental role within the wider landscape.”

added Mr Taylor

Free support to help clubs and greenkeepers to get the most from Operation Pollinator includes:

- Training
- Telephone helpline
- Downloadable presentations
- Topical updates and in-season advice
- On-line support
- Press release templates



The visual impacts of Operation Pollinator habitat in creating a more attractive playing environment were clear to see in STRI trials (right), compared to conventional management (left).

Surface transition to a better finish

New techniques to successfully over seed greens with desirable Bentgrass species could help greenkeepers to transform Annual Meadow-grass (AMG) dominant swards into more consistent and better quality playing surfaces.

Dr Ruth Mann, Head of Turfgrass Protection at STRI, reports that greens with a high proportion of Annual Meadow-grass can become thatchy, and more susceptible to disease and summer drought.

Surface transition trials at STRI over the past two years, instigated by Syngenta, Scotts Professional and Kensett Sports, have evaluated over seeding techniques and management options to move to optimal turf surfaces with a higher proportion of Bentgrass, which play firm, smooth and true - and alleviates the problems of AMG.

The research showed that the Graden Contour Sand Injection proved especially effective in reducing the trial site's high organic

matter level in the crucial top 20 mm, by up to 67% over the two years with high intensity treatments. Hollow core and microtine aeration techniques were also compared in the trial, removing 34% and 42% of the organic matter, respectively.

Dr Mann reported that where surfaces were subsequently tested in 2010 for moisture content and firmness, the improvements in these parameters were closely related to greater removal of organic matter.

Furthermore, Bentgrass seedling density and establishment was enhanced with the use of a Primo Maxx programme starting five days before over sowing and continuing every three to four weeks through the recovery phase. Importantly for turf managers undertaking renovation work through the summer, Primo Maxx also helped to speed up the return to a smoother surface quality.

Tests using the new STRI Trueness Meter™ revealed around a



Removal of organic matter gave a very fast improvement in surface firmness and lowering of moisture content in STRI trials.

10% improvement in surface smoothness seven days after aeration and oversowing when Primo Maxx was used, compared to plots not treated with Primo Maxx. The Primo Maxx treated plots also showed deeper average rooting and a notable enhanced darker turf colour.

“Overall organic matter removal and preventing Annual Meadow-grass ingress has shown the potential to create better quality playing surfaces, with improved firmness and smoothness, reduced water holding capacity and proving less susceptible to disease” advised Dr Mann. “The short term disruption can be justified by the long-term improvements attained.”



The combination of Primo Maxx treatments and over seeding with desirable grass species achieved faster recovery of colour and surface smoothness.

Clear advantage for Primo Maxx lines

Potential savings of around 20% in the cost of line marking have been identified by the Leeds Rugby grounds management team, by adding Primo Maxx plant growth regulator to conventional line marking paint.



Leeds Rugby calculate potential savings of around £2,400 per year in line marking costs across seven pitches by incorporating Primo Maxx.

Over the four week trial at Leeds Rugby's Kirkstall training ground, carried out by Ryan Golding and Jason Booth, they found that slowing turf growth and associated line fading with Primo Maxx could eliminate the need for one line-marking operation in every four.

“In other words, we would need to mark out each pitch only three times in a month, when previously we would have to do it four times over the same period.”

Ryan adds that with seven pitches on the training ground, this will give a significant saving in time and cost.

Leeds Rugby Head Groundsman, Jason Booth, calculates a potential cost reduction per pitch of up to

£33 a month, based on a paint cost of £26 and a labour cost of £7 per pitch. “Multiply this by seven pitches over 12 months, and the total potential savings are almost £2,400 a year,” he said.

Working with the Scotts' team, Ryan undertook the trial using a transfer wheel line marker with one half of a pitch marked with Impact line marker plus Primo Maxx at a rate of 2 ml per litre of line marker solution, and the other half the line marker alone.

“By day 14, growth along the line created using added Primo Maxx was being visibly held back and the marking was considerably clearer than the line produced with marking paint alone,” he reported. “This difference continued through to the end of the trial with no detriment in colour or health of the grass marked with line paint including Primo Maxx.”

Improved GreenCast

There's a new look to the free Syngenta GreenCast website, making it faster and easier to find all the essential knowledge for more proactive turf management.

GreenCast is the most comprehensive website for weather

forecasting, disease risk prediction, turf management information and application advice. And it remains completely free for all turf managers, agronomists and students. You just have to register once to gain full access to all the resources and in-depth knowledge.

Spot it on radar

Syngenta GreenCast Project Manager, Karen Roberts, highlights the site includes Weather Radar information, so users can track weather fronts moving across the country and foresee potential issues. “Used in conjunction

with the unique Syngenta Spray Windows Forecast, greenkeepers and turf managers can plan spraying opportunities and programme work schedules,” she advises. “It's part of our ongoing commitment to provide the most useful information for turf managers in a quick and convenient format; GreenCast remains the one-stop site for proactive turf management.”

Key features on the new look GreenCast website include:

- Five-day local and national disease & weather forecasting – proven by course managers to be more accurate than other turf-focussed weather providers
- Unique forecast of key turf disease risks – proven to aid more effective proactive decision-making
- Valuable five-day spray window forecast – enabling better work scheduling and optimum spray timing
- Essential Integrated Turf Management advice from STRI and Syngenta technical specialists
- Full product information and advice to help achieve the best possible results
- Application advice to get sprays on target
- The latest news, innovation and technical updates for more effective turf management



The hidden enemy: Turf disease under the microscope



Incredible new microscopy images of turf disease development within the leaf reveal the true extent of the damage being caused during early infection and the stress imposed on plants – before any visible symptoms are even seen on the leaf surface.

The above pictures, captured using advanced photo-imaging equipment at the Syngenta Turf Research facility in Stein, Switzerland, track development of a turf disease pathogen within the leaf.

Within hours of the disease spore germinating, mycelial growth is apparent, which continues to develop and spread into and then within the leaf putting extra stress on the plant. The symptoms of infection only become visible as the pathogen completes its life-cycle.

Syngenta Technical Manager, Dr Watson believes this new information gives an important indication on the value of preventative fungicides, and the role of systemic actives in targeting disease activity. “These images perfectly demonstrate what is going on, and highlight you don't have long to act.”

“Understanding what is going on with disease attacks is crucial for appropriate fungicide selection and optimised proactive application timing,” he advises. “It reinforces

the importance of getting protection in place before disease has become active inside the leaf to effectively minimise damage.”

Fungicide choice for typical turf growth and disease attack timing

“However, systemic fungicides that can penetrate into the leaf and move around within the plant give greater potential to protect new leaf growth during the growing season.

“This is an amazing insight into what's actually happening inside the leaf, reports Dr Simon Watson. Clearly there is extensive damage being caused to internal leaf structures, long before disease symptoms become apparent on the surface - with serious consequences for turf health and quality.”

The speed with which the active can move around to target development of the disease pathogen is the crucial factor.”

Dr Watson points out that disease forecasting on the free Syngenta GreenCast website can help turf managers identify periods of high risk and time applications accordingly. “The key is to help with fungicide selection and timing to get the most appropriate product at the optimum time to give the greatest and longest possible protection from disease attack.”

Turf PhD looks at science of stress

Research scientist Harry Mbah (right) has commenced the UK's first PhD looking specifically at environment-related stress in fine turf, and identifying potential techniques for turf managers to alleviate the effects on surface quality.

Funded by Syngenta and Harper Adams University College, with research support from STRI,

the work will be an important step in providing practical solutions for turf managers.

Dr Ruth Mann, Head of Turfgrass Protection at STRI, believes the underlying impacts of environmental induced stress may be having a profound effect on turf plant health, along with its ability to utilise water and nutrients resources to maintain quality.

Mr Mbah's scientific research help provide the advice and practical solutions for turf managers to get the best possible results, particularly with Heritage Maxx and Primo Maxx.

The research will be based at Harper Adams University College, along with work at the STRI and within the industry through Syngenta links.





The Contact⁺ activity of Medallion TL targets disease spores in thatch, as well as on the leaf, creating new opportunities for more effective turf disease management, believes Dr Simon Watson.

Medallion TL approval brings new approach to turf disease control

The eagerly anticipated Syngenta Contact⁺ fungicide active for turf, Medallion TL, has gained approval for use by UK turf managers. Medallion TL not only targets disease pathogens on the leaf surface, but has the same effect of destroying Fusarium disease spores in the thatch layer and the soil surface, according to Syngenta Technical Manager, Dr Simon Watson.

“Medallion TL will change the way we think about disease control, not only protecting from disease infection, but also reducing disease spore numbers and lowering the risk of further infection.” Dr Watson adds that it is the additional activity in thatch and soil surface that gives Medallion TL its Contact⁺ credentials.

“That makes it incredibly effective in its primary role for long-lasting protection from late autumn to early spring, but could also have a really valuable effect to prevent disease outbreaks triggered by spring and summer aeration or maintenance activities.

“The disease threat is ever present in the thatch layer, with spores living on decaying material and roots and waiting for the right conditions to flare up. Medallion TL gives us a powerful new chance to stop that occurring. We see this as a really exciting opportunity to develop new disease control strategies.”

An independent trial at Birch Grove Golf Club in Essex this year has demonstrated the new fungicide’s exceptional long-lasting disease control, even under very high disease pressure and testing conditions of prolonged snow

cover. After a spray programme through late autumn and early winter, Medallion TL was still giving over 99.5% disease control when assessed at the end of February, (pictured, right). In the untreated plots, over 25% of the turf area was affected by Fusarium, with serious implications for playing quality and recovery.

Watch disease spores explode

The exciting new mode of action of Medallion TL triggers treated disease spores to rapidly absorb water, to the point where they quite literally explode. This happens so quickly there is no time for the spore to grow and infect the leaf, thus preventing damage to the surface and reducing subsequent threat.

And since Medallion TL was bio-inspired by a naturally occurring antifungal compound of soil bacteria, it will destroy selected turf disease pathogens, but leave soil microbes with different protein structures unaffected,” he advised.

Watch the dramatic effects of Medallion TL exploding spores on www.greencast.co.uk



Medallion TL has proven to provide exceptional control of Fusarium (above, left compared to untreated right), even with high risk conditions under prolonged snow cover.

Players see the benefit of Medallion TL

Medallion TL will have an essential role in maintaining turf quality and player satisfaction, which is paramount with the current financial pressures facing all golf clubs. Sean Clark, Club Manager and Professional at Royston Golf Club in Hertfordshire and one of the new fungicide’s trialists, describes the positive comments he received from both members and visitors as: “quite remarkable.”

Mr Clark added: “The performance of Medallion TL proved exceptional under

testing conditions this year. Despite three weeks of snow, there was no sign of Fusarium six weeks after treatment. The greens are probably in the best condition for many years.

“There is no doubt that the treatment has helped this and, with just one application, it has saved us both time and money. We are always looking at ways of improving playability of our putting surfaces for both our members and guests, and will definitely be using Medallion TL again in the future.”

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