ISSUE 4, APRIL 2023





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by DENNIS

GROUNDSMAN

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YEP - WE'RE STILL HERE. OUR 4TH YEAR!

April 2023 marks the 4th year of International Greenkeepers, just by chance it also marks the 4th edition of our magazine. As many of our readers will already know, the magazine was formerly run in Australia under the Groundsman name. Having acquired the company back in 2021 we decided to relaunch the magazine, now called the International Greenkeepers Gazette. With each magazine, sponsor, and article the magazine becomes better than the last. And as always we'd like to thank all of our community, especially those who have helped us with this magazine.

Start as we mean to go on, as I (Bradley) am writing this has just left my position at Crosfield School as Head of Grounds. Taking on IGFH and some other projects that include, GMA pitch advisor, Wiltshire college – Sports turf lecture and Matchday groundstaff at Wembley! I am looking forward to each of these opportunities equally, not just for the experience but the content that it will allow me to generate for IGFH, so stay tuned because we have a lot coming up for 2023!

You can be sure we're lining up a return to Saltex in 2023, along with visiting SAGE, ScotsTurfShow, Groundsfest, and various other local events, and yes we'll be at BTME in some form for 2024!

For our new readers, the IGFH magazine is not made to compete with other industry magazines. We already have some fantastic magazines in our industry such as GMA magazine, Bigga magazine, Pitchcare, turf matters, and more. Our aim is to create a magazine around what IGFH is doing, our visits to sites, success stories, tournament experiences, and educational content. Funded by sponsorship and advertising our magazine will be completely free to download online and we will have free copies at Saltex 2023 and possibly future events.

We hope you enjoy what we have in this magazine, if you'd like to get involved in any way please email internationalgreenkeepers@gmail.com

Sponsorship and advertising opportunities are still available!





As many of our previous readers may know during the GMA awards at Saltex 2022 I was sat next to Sean Clixby who won GMA's national volunteer grounds team/individual of the year. We caught up with Sean and managed to get an interview!

Sean, could you tell us a little bit about yourself/your background and hobbies?

I'm the Chair of Trustees of Broughton Community and Sports Association (BCSA). I'm also Club Development Officer & U14 team manager for Broughton Ravers Junior Football Club. I'm also Head Junior Coach, Club Safeguarding Officer and player for Broughton Cricket Club. As part of my role as Chair of BCSA Trustees, I have taken on the role of coordinating our grounds maintenance works. I wear many different hats!!

I am 44 years old, married with two boys aged 13 and 12. Apart from moving away to study at Loughborough University (1997 to 2001), I have lived in the small town of Broughton (North Lincolnshire) all my life. I have always had a passion for sports and physical activity. I've played football, cricket, and golf and swam all my life. This passion led me to study and gain a degree in Physical Education, Sports and Geography. This then led me into training to become a secondary school PE teacher, gaining a PGCE. I was employed as a PE teacher in a secondary school in the nearby Town of Scunthorpe from Sept 2001 to Sept 2015. During this time, I got promoted to Head of Boys' PE, then Lead Teacher of PE, and then Head of PE.

In Sept 2014, because of the demise of PE in secondary schools, I decided to change career paths slightly and started working as a Health Mentor/assistant regional manager for a Company called Evolve. This was initially parttime, then in Sept 2015, I became their regional manager for Lincolnshire. Then my wife wanted to go back into full-time work as a Chartered Mechanical Engineer, so I took a back step and became a house husband! This lasted only a few months. Along with doing a bit of supply teaching in January 2017, I started up my own Company (Clixby Active Pro Sports Ltd). I am MD and work on the ground in schools teaching PE, running after-school clubs, community coaching sessions and school holiday multi-sports camps.

I initially started as a volunteer coach for both Broughton Ravers JFC and Broughton Cricket Club in the late 1990s. I then had a few year's break whilst concentrating on my career. Since 2014 I have become heavily involved in both Clubs.

SEAN CLIXBY - GMA Award Winner in 2022!



A brief history of the club

In 2014 myself and a couple of other local guys met in the local pub as we saw that the standard of sports provision in Broughton had dramatically gone downhill. Both the number of participants and the standard of the facilities. We set out on a mission to improve this! One of our main aims was to improve the grass pitch provision on the Town's Recreation Field. Broughton Sports Association was born!

SEAN CLIXBY - GMA AWARD WINNER IN 2022!

We quickly gained interest and support from the Community, and we changed to Broughton Community and Sports Association (BCSA). We were successful in becoming a registered charity in November 2016. Our charity quickly grew, and we were involved in many projects/events within our community. We help set up a walking group, a running group and a history group. We supported many community events including Broughton in the Park, World Cup Family Fun Day and Jubilee celebrations to name a few. Recently we helped set up Broughton in Bloom and Broughton Wombles. Because of the efforts of these volunteers, Broughton has won the best small town in North Lincolnshire's best-kept town/village awards 3 years running!

Between 2016 and 2018 Broughton Recreation Field was severely damaged by the Chafer grub and associated bird damage. We campaigned to Broughton Town Council (landowners) to do something about it. Unfortunately, this fell on deaf ears for a few years until a more proactive set of Town Councillors became voted in.





During this time, we were proactive in organising volunteer several repair days where members of the community came up to the field to help us repair the damage. At the time we had limited knowledge of what to do. Just what we could google! We also were proactive in getting the site's first FA pitch inspection. As we thought, the report came back damming. This gave us the needed evidence to prove to the Council that something NEEDED to be done.

Getting onto the pitch improvement programme opened up lots of doors and opportunities for us. We followed the recommendations and were successful in gaining Football Foundation funding to help us and Broughton Town Council purchase much-needed machinery to help with the improvements needed.

We then tendered for the contract to maintain the site and were successful! This involves volunteers from both Broughton Ravers JFC and Broughton Cricket Club being involved in cutting, spiking, brushing etc.

After the first year of our taking over the maintenance of the site, the improvements were evident. We were then successful in securing another Football Foundation grant as part of the enhanced pitch programme. This allows us to purchase consumables such as grass seed and fertiliser along with part funding weed killing and deep aeration procedures.

Our latest pitch power report (November 2022) has classed all but one of our pitches as advanced! They used to all be poor!

Your role at the club, volunteering hours, and how did you get into volunteering?

I am Chair of Trustees of BCSA and head of the ground's maintenance team.

Got involved in volunteering from my passion for sport and providing a decent standard of provision for those in my community. This includes my two boys who have become the fourth generation of my family to be involved in the Town's junior football club! Initially my Grandad as a coaching helper in the 1960s, then my dad as a player in the 60s/70s and a committee member in the 90s, myself as a player in the late 80s/early 90s and coach in the late 90s and 2012 onwards and most recently my two sons as players since 2012. My wife has even now started to train with the newly formed ladies' squad!! Think she has decided if you can't beat them, join them!

Volunteer hours vary week to week but all in all I would say about 12 hours in the winter months and about 20 hours in the summer months.

What attracted you to the industry?

Fell into it! I became linked to the GMA through the pitch improvement programme. I've since completed several training courses through them and BCSA has become a GMA member.

Favourite Part of the job?

Don't mind sitting on the tractor with my music on during nice weather! It's seeing the fruits of your labour and getting visiting teams commenting on how well the site is looking.

Has Covid affected your day to day work schedules?

Initially Covid affected us as we did not really know what we were allowed/not allowed to do. Once this got sorted in some respects it helped us as volunteers as some of us had more 'free' time to carry out the maintenance works. Several of our volunteers were furloughed from their employment.

SEAN CLIXBY - GMA Award Winner in 2022!





Best career achievement? Winning both Lincolnshire FA's volunteer grounds team of the year and the GMA's national volunteer grounds team/individual of the year in 2022.

What inspiring words would you say to young greenkeepers and groundstaff? Hard work and dedication definitely work! Never give up.

What does it feel like to win an award for your hard work? Amazing! Makes me very proud.

Thanks Sean!



Dennis and SISIS – St Albans school – Cricket Pitch Maintenance in a changing environment

Tuesday 14th February 2023

The Cricket pitch maintenance event was held at St Albans school, which is located around 20 miles North of central London just off the M25/M11 motorways. This series of successful pre-season indoor seminars across the country has seen over 2000 ground staff in attendance, bringing together volunteers and professionals representing schools, colleges, universities, and cricket and rugby clubs. High-quality speakers and interesting topics have ensured these seminars quickly gained a reputation as a 'not to miss' event with ground staff travelling considerable distances to be in attendance – Me being one of those travelling over 100 miles each way!

The event was a mix of thought-provoking presentations and discussions with plenty of time built into the programme for speaking with our industry partners and your fellow ground staff. Bringing together ground staff who are maintaining various sporting surfaces under one roof is an exciting chapter in this series of seminars. Another enjoyable and informative day.

As usual at these events, before the seminars started coffee and croissants, we're available and conversations flowed around the room. Groundstaff from all over the country meets to talk about their mutual interests and cricket pitches. We have a small industry and it's often that events like this can be a good opportunity to catch up with peers and meet new ones, while also enjoying the seminars and education that are provided. Among the crowd in the room were the event sponsors, dotted around with signage, information and the odd free cap. We'd all like to thank those sponsors for allowing days like this to happen. This series of events is often one of the best, as the hosts don't really give a brief on the seminars and you'll get some interesting topics to arise, rather than just a sales pitch, you'll get quality educational information. This year's day was based around Cricket pitch maintenance in a changing environment, with an emphasis on weather and water usage which I'll get into more about soon.

CRICKET PITCH MAINTENANCE IN A CHANGING ENVIRONMENT



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Opening the day was Robert Jack of the Howardson Group, the umbrella company for Dennis, SISIS and now Hunter Grinders and Lloyds after the acquisition and announcement back in November 2022 at Saltex. This as you can imagine is no small task, as Robert explains how the company are uploading drawings and beginning to create spare parts for the machinery, with future views to make more machinery.

INTRODUCTION AND WELCOMES - ROBERT JACK

Robert then followed his speech with a video of the St Albans grounds, showcasing what a fantastic job they do there. Good in a way because the good old British weather failed us and fog remained for most of the day, meaning we were unable to see what a fantastic job the grounds team had done preparing for the event.

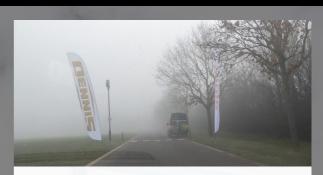
Robert Jack - Howardson Group

From an agricultural background in rural Norfolk, Robert's association with Dennis mowers began in 1997 selling the brand to a local dealer. Robert commenced employment in January 2003 with Dennis, responsible for the southern half of the UK. Seminars covering fine turf sports have regularly featured in the Dennis calendar but the first foray into cricket was held at Uxbridge Cricket Club in February 2011 organised by Robert and the then Head Groundsman, Vic Demain.

Since then Robert has been instrumental in organising similar events at cricket clubs around the country attracting huge audiences and many celebrities from the professional playing fraternity.

2017 saw the first renovation event and he was quite literally "bowled over" by the response and is hugely excited at the prospect of today's seminar. "I love these events" enthuses Robert. "Each one differs from the previous and you never know what is going to spring up on the day. Come along with an open mind, prepared to get involved and we are sure you will have something fresh to take back to your ground".







Robert Jack Howardson Group



Thanks to all of today's sponsors!







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Aidan McGivern - Met Office Meteorologist

2050 WEATHER PREDICTIONS - AIDAN MCGIVERN

Aidan is a meteorologist, weather presenter and climate change communicator. He started his career with the UK Met Office in 2007, forecasting the weather for helicopter pilots and offshore vessels.

In 2013, Aidan became a weather presenter for ITV Anglia and by 2016, he was back at the Met Office in Exeter, England where he continues to work as a Senior Presenter.

Aidan now presents the weather across a number of television channels, online and social media from the two purpose-built studios at the Met Office headquarters.

Since 2016, Aidan has played a key role in helping to grow the Met Office's social media presence by tailoring weather and climate content to suit different audiences on different channels.

Unfortunately, Aidan was unable to attend the day but did kindly prepare us a video presentation of what he would have otherwise said. The video started with a typical Aidan McGivern forecast – but based on 2050 predictions.

Showcasing the effects of climate change on the temperatures all over the world, highlighting areas such as India where severe weather warnings could be in place, with all non-essential work including agriculture being ground to a halt.

This would then have large impacts on human health and the environment. Sparking worldwide emergencies. Closer to home in the UK, we could expect to see summers with highs of 45 degrees become common with periods lasting up to 14 days over 36 degrees.

These prolonged heat waves will put significant pressure on already limited water supplies with hotter and drier summers.

We may think this is a lifetime away, however, predictions from 2018 to 2030 have become a reality in 2020! 12 simulations were made and all came to a similar result, drier summers and wetter winters, with rising greenhouse gases the chances of heatwaves are increasing.

For a sustainable future, we all must work together now to protect the future of others. Sustainability – to meet the needs of today, without compromising the needs of tomorrow.





Aidan McGivern Met Office Meteorologist



CRICKET PITCH MAINTENANCE IN A CHANGING ENVIRONMENT

Andrew House - Enviroment agency

Not long appointed to lead renewal of the National Framework for Water Resources at the Environment Agency. Broad background across central and local government, public service, consultancy, and academia. With ~15 years delivering cross-cutting environmental programmes, focusing on the water environment.

Previous experience mostly in hydrology and aquatic science, including noteworthy appointments as an expert witness on hydroecology to public inquiries, and member of the External Advisory Group for the effects of natural flood management on flows at the Centre for Ecology and Hydrology. Also led policy development on the sustainable use of pesticides at Defra towards the development of the UK National Action Plan for the Sustainable Use of Pesticides. More recently engaged in water resources hydrology and planning at the Environment Agency.

The next topic was Reducing the Impact of Water Restrictions on Sports Surfaces, started off by Andrew House from the Environment Agency.

Planning for drought. After the dry and hot summer of 2022 where we saw prolonged periods of high temperatures and records of 46 degrees in the Midlands. During the summer of 2022, 11 out of 14 areas in the UK were in drought status, with 3 still being in drought status in February 2023 – mid a UK wet winter for the overseas readers, a scary reality! Devon, Cornwall and East Anglia.

Reservoirs are exceptionally low at around 61% capacity. The reason why this is such a big issue is that it's often reported that during a heatwave water consumption can rise by up to 50%, which then leads to a section 57 water restriction. The EA did impose compulsory water restrictions but we did also see 2,500 voluntary restrictions.



PLANNING FOR DROUGHT - ANDREW HOUSE



Andrew House Environment Agency

How can we adapt? How can we make the industry more resilient? While still protecting the environment, population growth and the demand for water. Abstraction is causing environmental damage to several waterbodies.

The environment act 2021, will see restrictions/removal of licences to remove water from reservoirs, boreholes and the mains water supplies. Setting in place sustainable plans that include not allowing water used from water bodies to drop below 25% over a 12-year period.

There will be no compensation for companies where licences are removed or quantities lowered. The framework for water resources, the amount we have vs the amount we need.

We will see the refusal of new licences in the next few years, that's a fact. Collecting, storing and reusing rainwater.

Think about it, we have huge stadiums and drainage systems that mostly drain off-site into water bodies, and once they are full into rivers. We could be storing and reusing it!



George Warren - Anglian water's intigrated water management lead

George Warren is Anglian Water's Integrated Water Management Lead, where he works on identifying and delivering opportunities to bridge the gaps between the company's water resources, wastewater and environmental programmes.

DEMAND VS WATER AVAILABILITY - GEORGE WARREN

George recently led the successful submission to Ofwat's Innovation Fund for a multi-partner project focussed on unlocking the barriers to integrated water management in new residential housing developments, entitled Enabling Water Smart Communities.

George's previous role at the Greater London Authority focused on the promotion and delivery of retrofit SuDS schemes, for which he won many awards including the 2020 UK Susdrain SuDS Champion. An engineer by training, he has split his career to date between both the private and public sectors within the UK and Australia where he has primarily worked on promoting sustainable water management that embraces climate change adaptation.

Anglian water service covers over 20% of England covering 7 million people, with 3,300km of waterways, treatment plants and water bodies. They, as many who work in this industry, are facing many challenges – but they have set their own goals to improve the environment in the UK's driest region, maintain coastlines, lower flood risks, and help fight climate change while still meeting housing and population growth.

So how can we improve the water cycle to reuse more of the water? Increase overflows, slowing the flow into treatment plants, creating water storage, ditches/channels/water gardens. Anglian Water aims to provide funding with Severn Trent Water to create 40 new wetlands. The introduction of time-limited licences for water usage, with possible conditions, that 50% of the water must come from groundwater and 50% from recycled sewage water, and borehole extraction licences, limiting water usage.

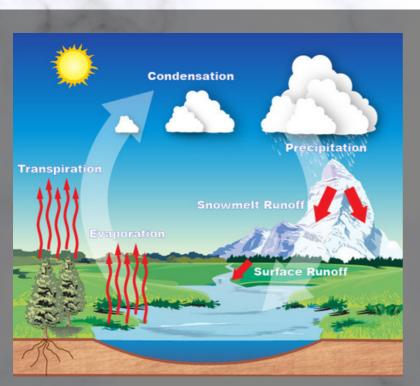


Photo source - https://www.weather.gov/jetstream/hydro



George Warren Anglian Water's Integrated Water Management Lead

We must meet the demand vs availability often known as the 'Jaws of death'. If we continue using water at our current rates, even with improvements to the infrastructure, by 2044 we may have water shortages across the country. Situations where low pressure or even no water in areas from the mains supplies.

Over the next few years, we will see non-domestic water supplies become more difficult to obtain under the new policies. There will be an increase in recycled water, particularly recycled water that will come from over 1,100 water effluent treatment plants.

Knowing this we must create a national methodology for effluent water. It's an option but not a one-fix answer, a combination of other water sources, recycling, storage and lower usage must also be made.



Tony Hanson - Environmental Soloutions International Ltd

FINDING ALTERNATIVES - TONY HANSON

Tony has over 35 years' experience working in management roles within leisure, estates, including six years as Sustainability and Property Director of The Facilities Management Group.

In 2009 he was appointed Managing Director of Environmental Solutions International, a consultancy involved in successful water resource and treatment projects in the UK, Europe, the Middle East, Africa, and the Caribbean – from hotels and resorts to UK Government projects.

For the past 18 months, he has worked with the EA, English and Welsh water companies, National Associations and representative bodies, Natural England, the Rivers Trust, wildlife charities, and universities – on a project entitled Water Use and Resilience in the Leisure Sector to: identify the source and use of water in the leisure sector; work with the leisure sector associations and representative bodies to help inform their members of changes to water availability and create the information and guidance to help them adapt; create an engagement and assistance package to help leisure operators find sustainable water sources to reduce the impacts of future restrictions to water supply for leisure irrigation."

The previous speakers led us nicely to Tony's topic, trying to find alternatives and creating a plan for the future.

Identifying and using all possible sources of water within the UK rather than relying on treatment plants and boreholes. Environmental Solutions International engage with national associations and industry representatives, to create a plan that has been funded by the water suppliers.

The associations in question are The GMA, RCA, NAPGC, CMAE and UKGF. Within the project, the aim is to raise awareness, create case studies and follow best practices such as stadiums that store rainwater collected by the roofs in the stadiums, then reuse the water for irrigation.



Tony Hanson Environmental Solutions International Ltd

There will be a large emphasis on sharing information and knowledge within the industry. While also making access to effluent water easier as this is an area of water usage that has a large potential. With many golf courses, training grounds and parks being situated close to treatment plants. The GMA is creating a plan for change 2025 template based on water resilience and catching excess rain and flood water.

With key point to take away is to find alternative water sources. A great example is the runoff from the M25, there are several golf courses nearby.



Alex Vickers BSc, MPhil, MI Soil Sci - Turf Consultant

ROOTZONE STRUCTURES - **ALEX VICKERS**

Alex has over 25 years of professional experience working in the field of applied soil and water management both in the UK and overseas.

Currently involved in applied soil science consultancy for the GMA and other organisations, he undertakes site assessment and development work for sports facilities and amenity land both in the UK and overseas. Before this, Alex was an Agricultural Consultant working for BMS World Mission for 4 years and was based in Kampala, Uganda. This involved working with 16 small communities in Northern Uganda to develop sustainable, productive farming systems.

Prior to this work, Alex was Principal Consultant for TGMS Ltd, formerly TurfTrax Group Ltd, providing a range of design and construction solutions for natural and synthetic sports surfaces in the UK. This work was built on the expertise and experience he developed as Course Director of the MSc programme in Sports Surface Technology whilst working for 16 years as an academic at Cranfield University, Bedfordshire, UK.

Rootzone structures and root zones for the future. Alex gave us a quick demonstration on how water moves through soils and can be stored within them – yes for those that know Alex this is the sponge demonstration that has been seen many times before. Alex proceeds to dip a sponge in a bucket of water. Water can flow uphill in a sponge (imagine the sponge is soil) but why? Capillary action and water tension are filling the pours within the sponge creating a wet sponge that no longer sheds water. Even with the strength of gravity, you'll never remove all of the water from the sponge this is because of adhesion and cohesion, think field capacity. The sponge can no longer absorb water, this is where evaporation and evapotranspiration come into play – but this is where we end the demonstration. Focusing on that first part, holding water.

Soil does eventually dry out, leading to plants reaching permanent wilting points. There may still be water within the soil profile but the grass is unable to access it due to the structure of the soil. How much water a plant can access can be measured by finding out what the particle sizes and distribution of the particles are within the soil. All though when think drainage sand comes to mind, not all sand is the same. Some have more angular particles that can hold much more water on the surface than rounded sand. This is why you'd never put building sand on a sports field. There is no perfect free-draining water-retaining sand, which is why we usually have a mixture. A good example would be a USGA spec golf green.

It is impossible to improve drainage and improve our drought tolerance. This is why we must use those different sand particles to our advantage, just as they do in USGA spec golf greens, having multiple layers of sand with different carting capacities. Meaning we can create the perfect balance of drainage and water retention within a profile. Although this method doesn't always work on contoured areas, as water will eventually run downhill. This is typically where irrigation comes into play, but where there is irrigation there is drainage, and as the previous speakers have mentioned we must reduce irrigation where possible. So the next sensible option is making use of and storing as much water within the profile as possible.

But here lies the next issue, roots do also need air. We need to avoid creating anaerobic soils, keeping air content at 15% or above. This percentage can be altered through aeration we must also not allow water content to reach above 25% or else there will physically be no room for air! So we know that the permanent wilting point of grasses is around 7-8% water content within soils, we can work out the size of the pours within the soil structure, in clay, silt and sand – but often is the case that we just don't have the finds to make major changes to the structure. Instead, one of the main ways to alter pour size as we mentioned is aeration, releasing compaction.



Then can we add sands to soil that has better water retention than rootzones, or maybe even use loams, peat, compost, zeolites, the super absorbers? But then what are the impacts on drainage?

We come back to not being able to improve both drainage and water retention, you'll have a dry playable field during the winter but you'll also have a dry unplayable field during the summer months.

Pure sand has around 4-5 days before permanent wilting points are met, whereas sand with added compost has around 9-12 days. Grass gives up searching and sucking up water at around 0.5 bar, we can use this information to save water cycles of irrigation.

What can we do during droughts, raise the height of the cut, and keep some water retaining thatch? What about drainage? Can we adjust the profile, secondary sand slit drainage, reducing N applications, wetting agents and pour sizes!



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Dr Christian Spring - STRI group principal scientist

Christian has been with STRI since 2005. Christian is STRI Group's Principal Scientist, providing specialist scientific and technical expertise across all parts of STRI Group.

PESTS AND DISEASE OF THE FUTURE - DR CHRISTIAN SPRING

His background is in environmental and soil science where he studied for his BSc (Hons) and PhD at the University of Stirling. Christian has over 15 years of experience of leading research projects into all aspects of sports surface design, construction, surface assessment, turf management, management of pests/weeds/diseases and integration of sustainable technologies into sports surface design and management.

Christian has been involved in research, design and consultancy projects covering all sports including football, Rugby, cricket, tennis, hockey, GAA sports, equestrian and horse racing surfaces, as well as greyhound racing. Christian has been involved with the delivery and design of training courses at all levels of sport and is a passionate communicator of science in the turf industry.

Christian, a well-known face of the industry spoke about pests and diseases of the future. We need to understand the nature of what we face, a future where we have no alternatives to chemicals and must instead plan for resilience. Now it isn't all doom and gloom, we just have to get it right and drive for change in the most environmentally friendly way.

Especially now that legislation is changing, in the UK we should all know about PPPs (plant protection products) and the legislation that was put in place for 2022, meaning all users and businesses must register what chemicals they are using. We will soon see further bans on pesticides within the EU that will then have a knock-on effect on products within the UK.

We also have many other factors to consider, such as financial factors and climate change. This is no small topic, what we have here is a giant oil tanker, and if we want to turn it in 5 years we better start turning the wheel today. We could end up in a situation without answers to our problems.

We have extended growing seasons due to climate change, leading us to extended disease windows, particularly in the Autumn and Spring. None typical diseases will become more frequent, what we need to understand is these diseases are already in the soil. They have been tested, but are waiting for the correct climate conditions to activate, and you'll see this more often over the next few years, especially in high-grass-stress environments. Climate conditions are becoming ever closer.



Challenges like this can create new opportunities, but don't expect to see new products, tool kits in that respect will be limited and we must look at alternative options. Prevention is better than cure!

For a pest or disease to establish we need three things, similar to a fire triangle. Correct environment, habitat and the pests/disease itself. Can we manage the environment or habitat, rather than the pest or disease directly?

Integrated pest management programs (IMPs) will be used more frequently, following prevention, cultural, physical, biological and then if all else fails chemical applications as a last resort.

Can we use dew suppressants, switch or brush to remove dew, thatch control, drainage, and aerification, using iron as a turf hardener? We do it all already, but maybe we need to do more or better well-timed?



Dr Iain James - ECB Head of facilities services

Dr Iain James is Head of Facilities Services at the England and Wales Cricket Board. Iain's team works across professional and recreational cricket to support effective, safe and sustainable development and management of cricket facilities.

The team includes specialists in the built environment, playing facilities, health and safety and sustainability. This team delivers on a large range of projects to develop facilities, better manage cricket grounds, improve sustainability across the game and respond to emergencies such as recent droughts, flooding and COVID. Prior to joining the ECB in 2020, Iain was Technical Director at the sports facility design consultancy TGMS Ltd, where he worked on a project, from the village green to international stadia. He was an academic at Cranfield University leading research on sports surface engineering and how to improve their performance, safety and sustainability, and teaching on the master's programme in sports surface technology.

In his spare time, Iain is a volunteer grounds manager at his local cricket club and loves to see people enjoying their cricket on the ground. In April 2020, Iain was appointed Head of Facilities Services at The England & Wales Cricket Board. His team is based within the facilities department and supports the game of cricket in the development of high-quality, safe and sustainable facilities.

What does sustainability mean for grassroots clubs? Sustainability is not new to cricket. Just something that is being brought to our attention now we have so much gone on about sustainability. A great example is the 2007 survey of cricket grounds in the UK, showing that 1/3rd is situated on flood planes and often flooded during excessive rainfall. These cricket grounds are often designed for this scenario with pavilions being built on stilt-like structures along with any storage. Once water levels in the rivers lower, the excess water in the fields is then pumped back into the river.

There are also other examples during drought, where the watering of an outfield is sacrificed for the watering of the wicket square, as this is where the majority of surface-impacting ball play is made. Lowering water usage and impacts on the game, thus creating a more sustainable environment.

The ECB's aim is to create an environmental sustainability plan, starting with topic 1 climate action. Reducing team flights and using sustainable transport – carpooling, and increasing onsite renewable energy. Premier League clubs create more waste and use more materials than grassroots clubs, having a much higher carbon footprint. Whereas most grassroots clubs actually have a positive or offset carbon footprint. More must be done at the top level of the game.

Topic 2 is the circular economy – reducing landfills. Dealing with the large amounts of rubbish that are created better, purchase less or even purchase sustainably – use fewer plastics. Can the old sponsored kit be donated to a local school or overseas facility rather than ending up in a landfill? Reuse or distribute to someone who can reuse. Can we also be recycling old machinery, how many cricket clubs have an old mower or roller sitting out back? Could that be sold or even recycled? Let's think about the whole lifecycle of a product, then reduce, reuse and recycle.

Topic 3 natural environment and biodiversity, can we look at creating wildflower areas around parking lots. Or new hedgerows and wetlands. We also must protect our water courses, not overusing the supply or causing damage to the areas with groundworks or noise pollution. There is best practice guidance out there, along with new ideas. If you think about watering more efficiently during droughts and dry weather, different time of the day or even application methods.

SUSTAINABLE CRICKET - DR IAIN JAMES



The ECB is working with the GMA to create a tool kit covering all of these topics to help cricket clubs become more sustainable.

While also making county grants and interest-free loans available, starting from £1,000 up to £50,000 for climate change-related projects. Anything from solar power and batteries, new boilers, EV points, insulation, doors, windows, irrigation and boreholes. While also providing guidance on how to be more energy efficient.

There are lots of ways we can promote sustainability – but one way the ECB has decided to recognise and promote good practice is the grassroots awards which have had a fantastic interest.

Together we are all helping fight climate change.



Karl McDermott - MCC, Lords

After beginning his career as Assistant Groundsman at Clontarf Cricket Club in Dublin, Karl took on the Head Groundsman role in 1997, ahead of the venue hosting an ICC World Cup Fixture in 1999.

KARL MCDERMOTT AND VIC DEMIAN - QUESTIONS AND ANSWERS

He spent seventeen years at Clontarf, working on numerous international and domestic fixtures and winning the European ICC Groundsman of the Year award in 2007, before moving to Worcestershire as Assistant Groundsman. He then took up a post at the Ageas Bowl where he was initially appointed Deputy Head Groundsman in 2009, ahead of the ground's inaugural Test Match in 2011 between England and Sri Lanka.

Karl became Head Groundsman in 2016 and presided over England's victory over India, the third Test Match to be held at Hampshire's headquarters. In 2018, Karl accepted the role of Head Groundsman at Lord's. He is very well respected throughout the game, having spent the past nine years producing top-quality pitches at the Ageas Bowl.

Karl's first season was a challenging one, with five World Cup matches including the Final, Ireland's inaugural Test match at Lord's as well as England facing Australia in an Ashes Series. He is widely respected within not only the cricket community but the wider community of the grounds managers community.

Vic Demain - Durham CCC

Vic has over twenty years in the industry, the last eight as Head Groundsman at the county club. Responsible for an International venue plus an on-site nets area and a further academy/lady's ground and nets facility, both grass and artificial.

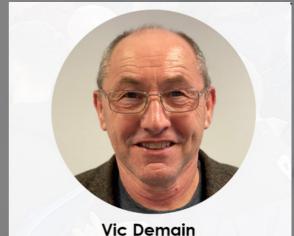
Hugely passionate about the industry with a keen interest in spreading the message of groundsman-ship across all levels of operatives.

The final seminar was closed with both Karl and Vic having a bit of question-andanswer tennis. Vic opened the questions by asking Karl what are the differences between working in the North and South of the UK. Is the weather 'up north' really always wet and cold? Karl answered – no, well yes, the north is around 2 weeks behind to start the season. That does have a little impact on pre-season preparations but nowhere near as much as people make out.

It's actually usually the North West that experiences much more rainfall than the North East so it can actually be a mixed bag. There is slightly more predictability in



Karl McDermott MCC, Lords



Vic Demain Durham CCC

the weather and that 2-3 degrees really can help when prepping pitches – but when you're working with outfields at lords that drain at 300mm an hour (joke) it's hard to compare. Slightly warmer and pitches can crack up more often but that's about it.

Vic – for Vic it's always about doing as much as you can, there is a famous picture at Durham where Vic is walking the wicket in the pouring rain. Being there and showing you are doing as much as possible to make the game go ahead is important. Almost raising the profile of ground staff, how can we ask for pay rises and sit eating biscuits in the shed?

Vic – How do you water squares on a slope? Karl – Watering is the biggest challenge on a famously sloped square, little but often is key. To stop water running off onto the next week's wickets. Even distribution and the use of wetting agents definitely help! It's difficult with games coming thick and fast, you have to do what you can under the circumstances.

Vic – Talks about having the same types of issues at Durham CCC and possibly more pressure due to not having the resources of the top venues. He talks about 2022, having 3 games in August, concerts and holiday events. Clubs from ages 6 to 16 and women's games. More games are being played on the same amount of squares. Game, game, game!

Karl – thankfully at Lords the games are capped at a maximum of 60 in a season and Karl has a huge input on the fixture schedule which puts him in a better position than some grounds managers. But it still presents an ongoing challenge. As always less cricket equals better pitches, but surely that then defeats the whole point. A middle ground would be best.

KARL MCDERMOTT AND VIC DEMIAN - QUESTIONS AND ANSWERS

Karl McDermott - MCC, Lords

Vic Demain - Durham CCC

Vic – An increase that has been noticed is the amount of training before games that are on the squares. In one of the 100's matches, all 4 teams trained at the ground the day before the game. How are you supposed to prepare for these situations? It creates a lot of extra pressure and no time to do the work. We all know what happens, ground staff work during the training dodging the cricket balls, unfortunately, though it'll only be a matter of time before someone is hit and hurt before something is done about it.

Karl – There are ways and means, of working in different areas where the teams don't train. Late nights and early mornings. Not great but we all do it, for the love of the game and our pitches. Karl then spoke about his time rolling a ball into a match pitch moments before a game during a training session. Dug it out with a dinner fork, smeared the area with water and loam, and then pressed in some clippings on the surface. It stood out like a green ball mark on a white wicket but the game went ahead and had no impact on the game. A memory to laugh about now.

Vic – A good tip is using PVA glue when applying shavings as the stick to the surface and keeping it uniform. It works.

Karl – Had a corporate game played a day before a test match, and one of the player's knees slid across the test wicket. Leaving scares this would have been a great time to get the PVA out. In reality, the game should have never been played anyway, it was the wrong time, wet pitch and under prep for the test match. Karl – Back to the weather, Worchester was on a flood plain. It flood one year and the team used drag mats and waders to remove the silt from the field. Turning it around in 3 weeks to a game. This would happen year after year, often with water on the square being neck-deep. He talks about many stories including a time when a mini tornado took away a cricket cover. They got it back in time but nearly lost the game.

Vic – in 2020 Durham square was very wet in the spring due to the weather, and actually, Covid probably saved him a whole heap of issues. With the majority of the season being called off. With the first game being in July after a full renovation, one of the best squares yet! A lot of work has been done, including levelling the square which has made it a lot easier to work on now.





The chaps rounded off the day there, it was Valentine's Day after all. Lots of the visitors needed to rush off as expected. It's almost a given within grounds that some sort of event or game is on Valentine's Day, Easter, bank holidays, Halloween, Christmas and the new year.

A thank you from Robert and the sponsors signed off the seminars, some headed outside for demonstrations or a quick walk around the site before heading home. A great day, and I am for sure looking forward to the next one – Bradley.



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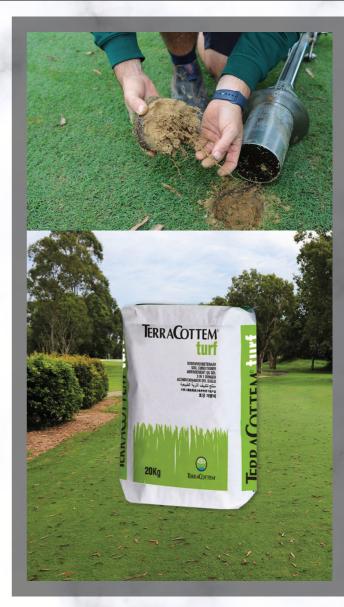
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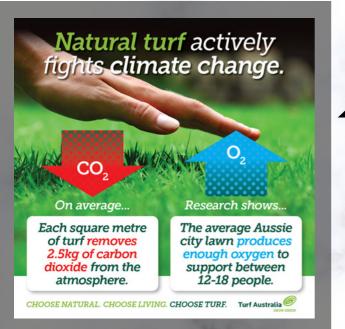


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Dr Mick Battam, a soil scientist, undertook a study on sportsfield usage and reported that the usage across 1157 playing fields in 24 local government areas across the Sydney basin was crystal clear that many councils are justifying installing expensive synthetic fields based on flawed usage data. This study highlights the importance of decision-makers developing strategies for sporting facilities and expenditure of public funds based on sound science as opposed to marketing material and unsubstantiated views. The common approach of many sports strategies is to use booked hours to assess sports field usage and calculate future need on the assumption that natural turf can only handle 25 hours per week of use. Dr Battam confirmed this incorrect 25-hour limit is then used to determine the number of fields that are 'overused'. The study found 99% of fields in the Sydney local government areas are used less than 46 hours per week. The typical (median) usage of sporting fields in the football season was about 12 hours per week in Western Sydney, with 22 hours per week of formal sport in the more densely populated Eastern LGAs. These numbers are well below the 46 hours per week for full utilisation, meaning there is the capacity for future growth.

Dr Battam reported that many of the sportsfields investigated had low to moderate levels of wear but were struggling as they had been poorly constructed and/or maintained. The study reports a lack of funds is often a major impediment to natural turf, with one of the most intensely used fields in Sydney not even having a pop-up irrigation system (~\$150,000) even though this council has spent more than \$10 million dollars installing synthetic fields. Dr Battam has many examples of fields that historically performed poorly, but once amended and maintained correctly can handle high levels of use.

Councils are recommended to collect actual usage data, rely on qualified natural turf specialists for advice, and assign appropriate budgets to construct and maintain natural turf fields to best practice standards.

NATURAL TURF ACTIVELY FIGHTS CLIMATE CHANGE

The many benefits of natural turf are often overlooked or not understood by those making decisions on what ground cover to use for a specific project. To support the decision makers, independent studies show the value of natural turf, whether that be public open space, sportsfield, schools or a home lawn.

Environmentally, natural turf has proven ability to support a healthy sustainable environment. Living turf not only connects us to nature but also actively removes harmful carbon dioxide from the earth and replaces it with oxygen, improving our air quality, not to mention the fact that it can be 30°C cooler than synthetic surfaces on a hot day.

Economically, turf wins hands down. The results of a 2019 study showed the true benefits of the turfgrass and lawncare industries equated to a value for people living in Melbourne totalling \$ 6.02 billion and Sydney a total of \$ 5.32 billion annually.

The quality of sportsfields, at any level of sport, is always open to judgement from players, officials and locals creating challenges for sports turf managers. High demand from sporting clubs leads to regular grumbling about the overuse of sportsfields as a significant problem – but is it really?



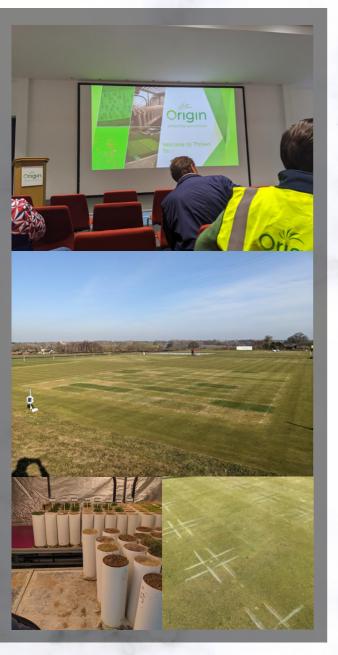
The above Sydney sportsfield had a history of poor performance and was considered for synthetic. Reconstruction, according to best practice, has resulted in 3 seasons without turf patching and achieving usage of 49 hours per week and no turf patching.

More information on these studies can be found on both $\underline{\text{Turf}\,\text{NSW}}$ and $\underline{\text{STA}\,\text{NSW}}$ websites.

Jenny Zadro - Executive Officer Turf NSW and Sports Turf Association, NSW







ORIGIN AMENITY - WINTER PITCH SPORTS DAY

On February 15th 2023 <u>Origin Amenity</u> hosts a winter pitch sports day at Throws Farm, a purpose build trials facility. The facility allows for the conducting of research, fine turf trials and the provision for education with meeting rooms and conference rooms, enabling 150 delegates to convene to discuss all things amenities. Outside, the centre has USGA constructed fine turf trials area; including a Rain Bird irrigation system, native soil ryegrass plots and amenity grass areas. In addition, the centre has on-site greenhouses and a laboratory. This open site, with prevailing easterly winds, is sure to encounter numerous turf stresses, which is just what you want at a research facility.

Both a Davis weather station and Soil Scout, featuring below-ground soil sensors, are placed in the centre's fine turf and native soil areas. This technology will enable the research and development director and trials manager to monitor the health of the turf and soil as well as monitor disease pressures and environmental factors that may induce outbreaks such as Microdochium nivale. The outcome is to offer integrated turf management (ITM) approaches to pesticide and nutrient applications.

The research will be carried out using replicated, randomised plot designs to produce sound scientific data. The subjectivity of collecting turf quality and disease percentage data will be removed by utilising a lightbox combined with a bespoke digital image analysis programme. OAS wishes to provide the industry with unbiased information about all the products that are applied; good or bad. Performance data collection is also included; after all, clients want surfaces that look perfect and expect outstanding performance.

The testing of new technologies such as drainage systems and robotic mowers, and carrying out research to optimise plant and soil health, will also take place. The technology centre brings together all the technologies needed to collect robust data and to understand the stresses that influence turf and soil health. This information will be analysed and shared with the amenity sector to provide sustainable turf management strategies and therefore future-proofing our industry.

The day started with the usual coffee, biscuits, welcomes and introductions. Familiar faces could be seen around the room, with teams from all around the UK. Everyone was then invited into the main conference room where a short presentation on the importance of good data and trials. Explaining how to remove variables such as sunlight and shade, wear and compaction, and uneven nutritional levels. To produce good data you must, replicate, randomised plots on a consistent area (no shade, wet areas, different soils, etc). Eliminate variables and statistical analysis to find significant differences.

A second presentation followed a short break, covering the topic of wetting agents and hydrophobic soils. How wetting agents work and how we should be using them to help us during prolonged dry periods or drought. With the restriction of water licences looming we must use as many other options as we can to still provide safe playing surfaces. Some of the facts from the data showed all areas that used surfactants were significantly better than untreated plots for turf quality. With less irrigation used, there were savings of 41,000 litres of water across two trial areas (31% less, 1mm per day) – the difference in average moisture levels of 13.8% v 14.4%.

A bit of lunch was then followed by the next presentation of the day talking about the use of glyphosates during renovations. Previously it was very commonly sprayed to clear old vegetation – including Poa Annua – from pitches prior to stripping turf with Koro. Some ground teams have stopped using it as they feel they do not have enough time to let the plant die before Koroing off and contractors do not like renovating dead pitches as it can take longer. After testing, results showed using Glyphosate and korrowing off after 24 hours had the same results as after two weeks. Once the Glyphosate had entered the Poa death was just a matter of time, and any content left after Korrowing would continue to die.

The afternoon was finished with a couple of quick topics such as tetraploids, nematodes and Grey leaf spot. This then lead us onto a tour of the facility, with all the information presented to us earlier in the day you could then see and relate to the current trials in action. Overall the day was entertaining, informative and very well presented. The facilities are fantastic and offer a great opportunity for our industry to move forward. I took Harvey Milne a member of groundstaff from Crosfields School along with me and he had a fantastic day!

Will Schnell - My latest trip was to Salt Lake City for the SFMA national conference. SFMA stands for Sports Field Managers Association, an organization that began in 1981 and currently has over 2,600 members. I joined fellow colleagues Adam Russell, Duane Klundt, Aaron Kuenzi, and Dr Gregg Munshaw.

This group is an all-star lineup of professionals that know the warm and cool season grass business extremely well. From research, seed production, sales, vegetation warm season breeding, sod production, academic and research farming, to myself-the, the end user; basically a one-stop shop with this crew.

Here is a photo of Adam, myself, and George Toma, the founder of SFMA.



I drove up to Salt Lake City from Sedona, AZ, an 8.5-hour drive. Another beautiful drive arrived on Sunday, Jan 15th. After getting into my room, I went back down to the front desk to retrieve a large FedEx box of sod I had sent to myself for our display at the trade show on Wednesday and Thursday. That night I set up a growing chamber in my hotel room that consisted of two hanging grow lights with aluminium foil sides to reflect more light and turned the room temp up to 80 degrees in order to get the two sod samples of 365ss and Gateway Zoysia back up to par after 2.5 days of being shipped in a FedEx box from the east coast to Salt Lake City. One sample came in with little pythium.

Adam Russell and I came up with a new idea on how to stop pythium: a hotel hair dryer. It worked well; who needs Subdue? Ok, maybe only on a small scale of 1 ft by 1 ft. We pulled out the old hair dryer and ran across the sod morning, noon, and night, and we got to know that turf pretty well when you're drying it and blowing air through it with a hair blower. Also, the low humidity in Salt Lake City helped. Got the job done; sometimes, turf managers need to think outside of the box.

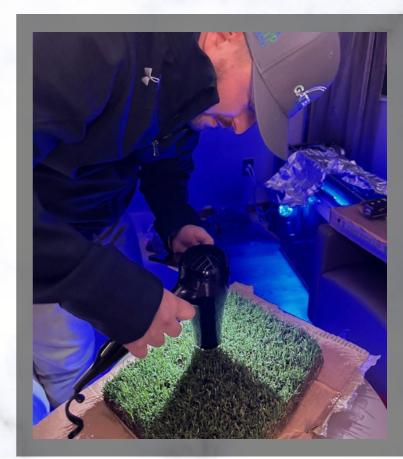
First day Monday, Jan 16:

I was part of three large Greyhound buses full of turf managers, academics, sports turf product providers, consultants, sod growers, and field builders, all going to look at some of the fine sports fields and meet some of the brightest turf managers in the greater Salt Lake area. Our first stop was BYU. I am guessing there were a total of 175 people who went, and all excited were about turf. Anyone that has not done this first-day trip, must do it next year. Well worth your time! Also, this is a great way to meet people in our industry.

THE GREAT SALT LAKE - WILL SCHNELL

We were shown the BYU baseball, softball, soccer, and football fields. All of these are bluegrass fields. Byron Hopkins, PhD from BYU, shared his team's research on growing Bermuda in Utah. Current research shows some of the Bermuda trials are doing so well that they are considering changing their game football field to Bermuda. IronCutter did the best of all Bermudas tested. Check this out; you know that Utah has a ban on a type of grass?! I know you are thinking of that wacky weed that makes you silly...nope, it's Bermuda. My old friend Bermuda has been illegal in Utah for decades. What / Why? It's been banned for decades as a result of being pushed by the farmers that produce crops for livestock. It is classified as a noxious weed and so aggressive they feel it will take over cool-season grasses that farmers are trying to grow. As a turf manager, I want and need a plant that is aggressive and will take over other plants or weeds (the definition of a weed is a plant out of place). Hey, I get it. The old common Bermudas put out a seed head, which is a large part of how it's spread.

In today's world of Hybrid Bermuda breeding, legendary breeders like former OK State prof Dr. Charles Taliaferro (breeder of Latitude 36, Northbridge, and now IronCutter) have focused on rhizomes and stolon strength while also making seedheads sterile. This makes them safer to plant. There is also another need to encourage Bermuda to be grown again in Utah; just as in California and Arizona, the lakes and underground water reserves are hitting record low points, and water restrictions are in place. Some of these Bermuda are so drought tolerant they save up to 50% water... it seems like a no-brainer to give the green light to these Hybrid Bermudas.



I also met up with the new head turf manager at BYU, Dustin Pixton. He is a very sharp turf manager who just took that job at the end of last year. He was the assistant for MLS Real Salt Lake with Dan Farnes prior, and I can't wait to see what he will do at BYU. I met Dustin several years ago, and we had a long conversation in my office at the Rose Bowl about sports turf.

He expressed he would love an opportunity with Bermuda after looking at Dr Hopkins's research. Keep your eyes open for that name Dustin Pixton; I expect great things from him. When you see the BYU football field on TV, it will look good and play great... and maybe something new called Bermuda will appear in a year or two.

Our next stop was at the Real Salt Lake City field, and wow!



RSL won the SFMA professional soccer field of the year for two of the last three years. Dan Farnes and his crew do a great job. Dan has a lot of cool tools in his shed; sub air, heat, lights, blankets, and a great growing medium of 90-10 sand, and he uses North Dakota peat.

Mountain View Seeds' sister company Landmark Seed's HD 2.0 Sports Bluegrass was selected, and the turf farm selected was Raft River Sod Farm. I would like to visit this farm one day; I've been told by several turf managers that Raft has beautiful sand and grows great sod. Real Salt Lake's game field was re-sodded in late fall and had some really nice white roots that were looking strong; you could have played a game on it that day. The field had blankets on it to increase soil temps and reduce winter damage.

During his 30-minute presentation to the group, Dan gave a lot of credit to his crew and his vendors; he expressed a lot of gratitude to Brad Snavely from STS foliar products. Also, Brad is a guy that I need to shout out, too; he helped me out a lot in my career. Brad has great products, is the smartest guy in the room, and is a good friend. Dan is on a weekly, very extensive STS foliar spray program that feeds his plant through the leaf blade. He has an additional soil spray program that provides water directly, promoting his soil biology and health, and can correct any issues.

Dan also uses Earth Works products as the granular fertilizer for organic carbon input to help soil health and retention of nutrients; he uses this because of the high sand content in his growing medium. Dan does a lot of soil testing and some tissue testing which gives him directions on what to put out. Dan has also done a really good job surrounding himself with a lot of great people, starting with his amazing crew.

THE GREAT SALT LAKE - WILL SCHNELL

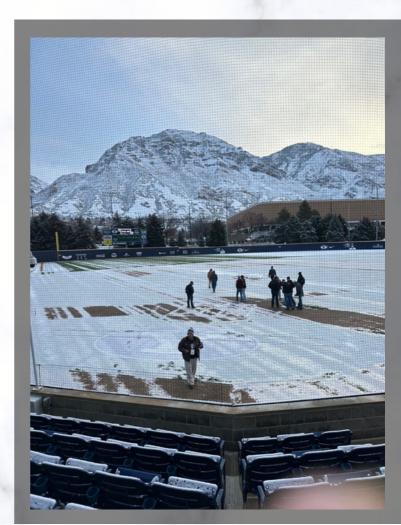
After our first stop, the buses took us to the minor league baseball field of the Salt Lake Bees, where we met Head Turf Manager Brian Soukup. Brian has done a great job here.

He told us about the schedule on his field, where he sometimes will have two games and four teams of batting practices a day for three to four straight days. Brian had his field covered with Covermaster growth blankets; every inch of turf was covered.

Impressive; he does an outstanding job. I did not get a chance to have a one-on-one with Brian, this was the last stop of the day, and Brian was in high demand after he spoke. The field had just been rebuilt, and a new Kentucky Bluegrass 365ss field was put in by one of my favourite sod farmers, Nathan Cox of Desert Green Turf.

Desert Green has some of the most beautiful native sand I have ever seen from any farm in the country. Nathan grows some outstanding turf in the greater NW of the United States.

It would be my guess he would be picked for several of the 140 – 160 fields needed to be grown for World Cup Soccer. His farm is a bucket list item for me to visit. If you are ever in the area, go see it.



Monday evening

Went bowling with another 150 Sports turf people. If you go next year, go to this event, I recommend it. It's a great way to meet and talk with people in our industry. Good friends, good drinks, good wings, pizza, and terrible bowlers.

Tuesday

The event started off with an opening ceremony and a talk on the World Cup. Would you listen to this... there could be up to 160 soccer fields that need to be grown on plastic, all at the same time. 160 fields x 2.5 acres = 400 acres of sod on plastic - that is a lot of extra sod that needs to be grown! They talked about the issues of growing grass indoors, warm and cool season grasses, the elevation of different facilities, and trying to keep fields similar and as consistent as possible from Mexico all the way up into Canada. A lot to figure out. Also, probably going to use some type of fiber to give quicker stability.



There are some really good people leading this project; Tom Sarachan, PhD from Tennessee, and Trey Rogers, PhD. Michigan State, and Alan Ferguson from FIFA. There is going to be some really nice advancement and turf knowledge coming from this research and from the guys growing the sod on the farms and stadium and practice facilities.

A lot of great talks and round table conversations happened. I saw a lot of old friends and made a lot of new friends. I can remember my very first turf show; it was the National Golf Convention show in Nashville back in the late 80s. I was a young and dumb student at CMSU working in the sports field. Our football field won a national award and made the cover of Sports Turf magazine, and yes, it was a common Bermuda overseed with rye; however, in Missouri, not Utah. I was hooked after that show. I could not believe all the specialized equipment, fertilizers, and research that was on display. Truly a big crossroads day for me, and after that...I wanted to be a turf manager.

Wednesday all day and Thursday morning

Trade show day. I was a kid in a candy store.

Today was the best of both worlds; before the trade show opened, I went in and walked the entire floor without distraction, I really got to take it all in by myself for about 2 hours. Also, I got to work the Mountain View Seeds and MVP Genetics booth and showed off their great bluegrass blend of 365ss sod, grown by Tuckahoe Sod Farm. Tuckahoe does an outstanding job with this grass.

THE GREAT SALT LAKE - WILL SCHNELL

They have placed it on many Major League Baseball fields, NFL football game and practice facilities, MLS facilities, and college facilities. Also, at the booth was a good-looking sod sample of Gateway Zoysia that is new to the MVP lineup; keep an eye out for this grass. It is already in several trials and on golf course greens, and it is looking good. Also, upscaling production acres at Ed Keven's sod farm, Selecturf, in Jefferson City, Missouri, we are thinking it will be ready to ship this spring. I want to tell you more of the story and history of this grass, but I'll do it on my next blog; it's getting long here.

Thursday evening and Friday

I did a Podcast with Adam Russell of MVP Genetics and Drew Miller from Brentsville High School Turf Management program in Virginia. Pretty good talk with Adam, Drew, and myself, and full of information; you will see when you listen and watch. I was allowed, and it was my honour to attend with Adam Russell the Minor league Symposium. 75 minor league groundskeepers attended this very educational conference. Mountain View Seeds and MVP Genetics helped sponsor it with 5 other companies, and it was led by DuraEdge. I have never seen a company take over one area of athletic fields as DuraEdge has done almost overnight. Almost every minor league and major league team and college have DuraEdge products on their fields now. Grant McKnight and his staff have really standardized baseball skinned areas and clay areas, and their sister company, Foremost, is starting to build entire complexes and entire fields. These two companies have experienced groundskeepers working for them that I have worked with or have called friends for combined 60-plus years: Tom Burns, Luke Yoder, and Eric Blanton. Hope to do business with them sooner than later. Being at the Minor League meeting made me think about my minor league days. After I graduated from CMSU, I started my professional career in the minor leagues with the Harrisburg Senators, a Montreal AA affiliate, now the Washington Nationals, and the Norwich Navigators of the NY Yankees. I learned a lot in those 7 years. A lot of great memories on a shoestring budget. Many times, my crew was: Me, Myself and I, not a very smart crew, but it sure was hard working. Lol. I have a heart for these guys in the minor leagues, and they are the future of our industry. Treat them well.

Well, that is all I got. Look forward to talking with you soon - Will To read more about Will's adventures <u>click here</u>



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To unite greenkeepers, promote the industry, and help share the art of greenkeeping with others. The organisation is made by greenkeepers, for greenkeepers.

GROUNDSMAN

Our main goal is to provide free education for those involved in the industry and anyone with an interest. Our education is currently being produced in three formats: text, podcasts, and videos, which have had overwhelmingly positive reviews. Some of our YouTube videos have over 100,000 views, podcasts with over 6,000 views and educational cards which can be found on our socials and website.

www.internationalgreenkeepers.com



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Learn how to create a healthy lawn and find your local turf supplier at www.turfnsw.com.au

Benefits of healthy natural turf

- 30°C cooler than synthetic on hot days
- 1 sq mtr of turf removes 2.5kg of carbon dioxide

STANTINE WARKS

- The average lawn produces enough oxygen to support 12-18 people, everyday
- Can increase property prices by 19%
- Less runoff into stormwater drains
- Improves mental health and wellbeing

SISIS

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