

Turf Clippings

AUTUMN 2017

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WELCOME TO THE AUTUMN EDITION

Welcome to the autumn edition of Turf Clippings 2017. On the back of two tropical cyclones recently, we have experienced what could only be described as a soggy end to autumn. Cyclone Debbie in early April followed by Cyclone Cook only 10 days later caused significant damage to communities across central and eastern North Island. It was not uncommon for some regions such as Taranaki to receive almost three times the usual amount of rainfall at that time of the year. As a consequence it has left many regions with sodden ground leading into winter. Conditions not ideal for growing turf it can be said, however it has been encouraging to hear the extended offerings of assistance to those that have needed it due to extensive flooding.

Due to these significant autumn rain events our seed harvest this year has seen certain stocks return lower than expected yields. In particular the colonial browntop production has yielded below our anticipated tonnage which may cause some supply and demand issues later in our calendar year. Much like a couple of years ago, high rainfall is also wreaking havoc in the Willamette Valley region of Oregon, USA where the majority of our fine fescue is grown. They are currently experiencing over double their average rainfall since January which will no doubt result in not only lower yields but less good quality seed for importation into New Zealand.

Within our ryegrass portfolio we are very excited be introducing another cultivar into the market that again lifts the bar with various attributes. You can read about our new perennial ryegrass, Spartacus on page eight of this issue.

It is also exciting this year to yet again have our venues thrown in the international spotlight with the upcoming DHL Lions Tour, followed later in spring with the 2017 Rugby League World Cup. If the 2011 Rugby World Cup and 2015 ICC Cricket World Cup were anything to go by, the quality of surfaces that our Turf Managers will provide will be second to none on the international stage and will be something we as a turf industry can be proud of.

Finally there are a number of industry specific conferences being held this year from late May through to late August. As always we choose to continually support these events and wish the organisers success in hosting them. Whatever industry you are from within the wider turf community, we encourage you to get out and attend, network with your colleagues and continue to learn. We'll see you there!

Jason Weller
Sales and Marketing Manager



**Dunedin 20-22 August,
Forsyth Barr Stadium.**

Reminder the Fine Turf Seminar is coming up! We would love to see you there!

Registrations are now open.



Westpac Stadium re-surfacing work

Who: Westpac Stadium

Where: Wellington

What: Re-surfacing work

When: December 5th-20th 2016

Why: After 17 years we were at the end of the life span for the existing turf and our organic matter percentage monitoring was one of the key triggers in identifying the requirement of a new surface.

WHAT HAVE THE CHALLENGES BEEN IN THIS PROJECT?

Time

We completed the work from start to finish in 16 days, Dec 5th – 20th. Our first event scheduled after the re-surface was on New Year's Day with captain's runs on Dec 31st. Due to the fluid nature of our events schedule we really couldn't commit to shutting down for an extended period of time. Ideally we would have liked to re-new the surface as it originally was, however to shut down for around three months would see us having to temporarily re-house hirers and miss out on other potential lucrative events. Not just for Westpac Stadium but Wellington.

Kaikoura Earthquake

With our turf having been grown just south of Auckland in Glenbrook, freight of the turf from Auckland to Wellington became somewhat of a challenge with Kaikoura becoming the priority. Having deliveries arrive on time and at the shortest travel time with the turf rolled up was highly important. From harvesting to transport to laying all three areas relied heavily on each other with freight in the end a major part.

The Wellington Port was also affected by the earthquake and that for us meant deliveries already on route or about to be sent had to be diverted via either Tauranga or Auckland.

A second survey of the field was also taken after the earthquake. Really just a box ticking exercise in the end but we had to be sure that we weren't going to be faced with any irregularities when referencing our original surveys and while conducting work establishing new contours.

What has been the best thing about this project?

This is an opportunity that doesn't come around very often. There have been a lot of learnings from this project. To have completed this work in such a small timeframe to this scale is massive. It is now very pleasing to see the work that has been put in starting to pay off.

What is the process you used to get to this point?

We issued an RFP (request for proposal) in September 2015 and from that HG Sports Turf were given the nod to supply their product Eclipse.

May 5th 2016 establishment of our new turf began in Glenbrook on three large flat pads.

December 5th 2016 we began the removal of the existing surface (2440m³ of material) and established our finishing heights, this process took nine days. 15,050m² (1204 13m x 1m rolls of turf were laid) in just seven days following.

During the whole process we were also installing a 3m wide artificial ring road a total area of 1343m².

How is this going to improve your grounds?

Removing the organic/sand layer immediately below the original surface bringing us down to clean sand allows us to continue to have high infiltration rates and a good healthy profile.

The Eclipse is a reinforced stabilised turf product that is 'ready to play'. This gives us the flexibility of conducting turf replacement as required when areas need attention within at worst a few hours before a match.

The ring road is also now a key tool we can use with in the arena. It allows access to areas of work for all without having to enter onto the field and we can now move machinery and equipment around the arena without causing any significant damage to the turf.

Due to the fluid nature of our events schedule there was excellent understanding and a lot of consideration taken towards our requirements. The short turnaround of the surface was always going to be the biggest challenge and a feat not often if at all achieved in New Zealand. HG Sports' team on the ground lead by Nathan Humphreys, Marty Cupples and Brad Kidd ensured we were able to meet given timeframes while maintaining a high quality control standard. No problem was too big or small. The whole team did a great job and were brilliant to work with.

We have since had six A-League fixtures, a Cricket International and Guns 'n' Roses. While the concert was a test in its own right, the biggest test so far has been the Wellington leg of the HSBC Sevens Tournament 28-29 January. 45 matches on the field of play and 90 team warm ups split across four designated zones across the two days. The damage sustained across the whole of the surface was minimal, only 25% of what we experienced during the 2016 event.

The feedback has been fantastic from players, coaches and controlling authorities on how the surface has been presented and most importantly performed. The summer weather here hasn't been the best during a couple of the events but the surface wasn't overly affected as a result and the Eclipse stabilised turf system has performed exactly as expected.

HARBOUR TOWN GOLF LINKS – RBC HERITAGE – 13TH-16TH 2017



Brook Murphy, Harbour Town Golf Links



2017 RBC Heritage, Harbour Town Golf Links

Who: Brook Murphy

Where: Harbour Town Golf Links, South Carolina

What: RBC Heritage

Why: PGA Tour experience, Ohio Program and an opportunity to get outside my comfort zone in both the turf industry and to grow as a person.

Challenges: The main challenge was the length of the work days, staying awake and alert the whole time and performing tasks to a very high quality whilst dealing with jet lag. I landed Thursday before tournament week and was straight into work on the Friday. My days started at 5am mowing fairways for three hours and then on call with blowers and rakes ready to blow greens and rake bunkers if needed. From 3:30pm I mowed rough until 8pm then got everything ready for the next morning before home time, sometimes only getting four hours of sleep.

Best thing: The best things about this project was seeing such a big staff of 20 plus people

working as a team, seeing the end product and hearing the raving reviews from the PGA tour players, commentators, golf fans and other green keepers which can sometimes be very rare in this industry. When you put in the hours and hear the compliments it makes you feel that all the hard work has paid off and gives a sense of achievement and accomplishment.

The process to get to this point was firstly a six month Sports Turf Management Course through Otago Polytechnic then from there I worked for three and a half years at Harewood Golf Club in Christchurch under Colin Posa. While there I applied for the Ohio State University Programme through Mike O'Keeffe and was placed at the Sea Pines Resort in South Carolina where I was accepted for an 18 month internship. Sea Pines Resort has three courses, Harbour Town, Atlantic Dunes and Heron Point where I will be spending most of my working time.

This experience is not like anything I've done before. From the amount of money, time and resources used to the stringent checking of things like moisture levels, bunker sand and green speeds it is a whole other world over here in America on the big stage!

My advice to aspiring Turf Managers is to seriously consider doing this program. It's an overseas experience whilst getting paid to gain valuable experience in our industry. Many golf courses over the USA are looking for young Kiwis whether it be for 6, 12 or 18 months. It's an experience that will put many feathers in your cap and boost your c.v. for future aspirations in the turf industry and also getting to learn about different cultures while you work with Turf Managers from all over the world.

One of the most valuable things this experience has taught me is to only worry about the things that you can directly control, saves a lot of stress!



The Study Tour participants. From left: Bevan Houghton, Blair Dibley, Bill Walmsley, Andy Wood (Kauri Cliffs), Craig Kerr, Brian Griffiths, Louise Carpenter, Keith Salisbury. Photo taken by Dr Phil Ford

Every year PGG Wrightson Turf spends thousands of hours and dollars in Research and Development. This investment helps the R&D team to continue to produce leading turf cultivars and bring the latest product development to the World Market. It was decided a few years ago that the R&D team should catch up each year and visit a different area of New Zealand or Australia to visit the coal face and listen to the many different challenges faced by Turf Managers in their own unique areas.

This year it was decided that the team would visit New Zealand's most challenging turf environment, the Far North. The team would hear about the challenges and projects carried out by Turf Managers on both warm and cool season grasses and listen about the constant disease, insect and weed pressure the team battle each year in such a challenging environment. Here is a brief overview of the Far North leg of the journey.

The first visit was to the world renowned Kauri Cliffs Golf Club with manager Andy Wood:

The golf club is now 17 years old. The greens are creeping bentgrass and the fairways perennial ryegrass with fine fescue and uncontrolled roughs. Andy gave us a fascinating insight about his golf maintenance regime, and discussed the emphasis on rolling greens to help reduce dollar spot. Andy also discussed the game changing implementation of a growing degree programme for poa reduction using different active ingredients, the mainstay being Paclobutrazol. Andy has done this successfully and with minimal disruption to the surfaces and

has managed to revert the greens to 90% poa free. He also discussed the constant battle against disease and pests and also the last few years of drought which pushes water management skills to the limit.



The team discussing growing degree days with Andy

The next stop on the tour was to visit the PGG Wrightson Turf Kerikeri research centre with Phil Olyott:

PGG Wrightson Turf have recently been sending plant material to PGG Wrightson Turf Kerikeri research centre. The team visited a trial plot where 45 perennial ryegrass lines or cultivars are planted in 1m lines, three replicates, to assess melting out and disease tolerance. PGG Wrightson Turf will be monitoring this site for the next few years where we can hopefully collect data to help with disease tolerance in the upcoming breeding programmes.



Next it was to Whangarei sportsground with John Prunell (Recreational Services):

Our first venue was to the Cobham Oval cricket ground. John explained to the team that the wicket surrounds had been treated a few days earlier with gibberellic acid and the *Poa annua* was standing up, ready for herbicide removal; the couch was noticeably greener and the effect can last well into the winter dormancy period. On the adjacent Toll Stadium, there was plenty of Legend couch coming through after winter. It had also been treated with gibberellic acid and the ryegrass and *Poa annua* was ready for removal for Legend couch to be the playing surface for the summer sports planned for the stadium. John then showed us the five new rugby training grounds, sand-capped construction on an old land fill area. These were well established in Legend couch, oversown with ryegrass. John felt there was a definite benefit in the oversowing programme used through the winter with the couch stolon's being protected by the cover of ryegrass during heavy winter play.



John explaining turf regimes in the stadium



Recreational Services Turf Team along with PGG Wrightson Turf R&D team

Northland Golf Club with Iain Power:

The course has gone from pure *Poa annua* greens several years back, to almost pure browntop. This has been achieved with a diligent fertiliser programme, using predominantly sulphate of ammonia at a nitrogen rate of around 100kgN/ha/year along with overseeding

and a careful water management programme. Ian explained that this has reduced fungicide applications from about 14 per year down to around 4. The greens were some of the purest the team had seen throughout New Zealand.

The team returned to the Kimihia Research Centre to work on some of the recent issues and

information they gathered on the study tour.

Everyone here at PGG Wrightson Turf would like to thank everyone who let us visit their facility and give up their valuable time to discuss their management Programmes.



Iain Power showing one of his perfectly converted browntop greens



Trial plots at Kimihia Research Centre



John explaining turf regimes in the stadium

UNIVERSITY OVAL

Who: Mike Davies

Where: University Oval, Dunedin

What: International test match between Black Caps and South Africa

When: March 8th -12th

Why: First ever test match as Head Groundsman

What have the challenges been in this project?

The importance of planning! To be 100% sure of the "recipe" and planning of the wicket preparation, and outfield presentation. Leaning on good people in our industry to create the timeline and targets to hit throughout our preparation.

What has been the best thing about this project?

Being able to deal with, and enjoy pinnacle events because of clinical planning. Huge help from others during this planning really enabled me to enjoy the week, and soak it all up!

What is the process you used to get to this point?

Work hard, set high standards, and create good relationships. Above all, love what I do, and show it!!

How does this experience compare to any other major tournament you have worked?

Head and shoulders above anything else. Dealing with players, umpires, stakeholders and media constantly was so much fun.

What would you say to inspiring Turf Managers wanting to get to the point of hosting a major tournament?

Be prepared. Plan, plan, and plan some more. Don't be afraid to ask for input from those more experienced about your plans, there is so much good knowledge in our industry from others, and they are stoked to be able to help!

Quote from interviewee:

"I NEVER LOSE, I either win, or I learn"

THE DEVELOPMENT OF THE TURF TRIAL AREA IN URUGUAY



With the investment made by PGG Wrightson into a new warehouse and technology centre just out of Montevideo in Uruguay, the opportunity arose to develop an area of sports turf not too dissimilar to that at Kimihia in Christchurch. The goal was to set up a fully irrigated, multi-cultivar demonstration trial site, with a small golf hole and football field, and well-manicured and landscaped lawns surrounding the area.

The warehouse construction was finished in early 2016, and land that had been used for the location of prefabs, vehicles, building supplies and rubbish skips etc. was finally cleared to allow for site preparation for the sports turf area.

Once the base levels and fall was established, topsoil from a stock pile on site was used to spread over the one hectare site at a depth of 300mm. This was done to a really high standard, although the soil in the area, while being quite fertile has many clay like properties to it, so correct soil moisture levels are critical to be able to work productively with the soil.

At the end of February, PGG Wrightson Turf Technician, Blair Dibley, myself and an enthusiastic Paul Mooney (PGW Water) received the green light to head to Uruguay and install a Rainbird automatically controlled irrigation system for the site, and the surrounds of the warehouse building. We gave ourselves just over two weeks to install 135 sprinklers, with all the 700 series sprinklers in the trial area individually

controlled. It was a project of many high and low points, but remained enjoyable through the whole process as we were working with some helpful and friendly local staff. Small problems that were overcome included issues with locally sourced parts supplied being the wrong ones [part of this due to imperial to metric conversion miscalculations], machinery breakdowns [the age of them was definitely a factor], using very well worn tools [being polite there], rainy days and having the few local helpers work effectively with the translation difficulties. This made it a very rewarding project and it is a real credit to Paul that we have a flawlessly operating irrigation system looking after our turf trial areas.

The area was subsequently sown with Colosseum perennial rye grass, and allowed to settle over the winter months. In early September Blair spent five days on site to organise and help install the spring demonstration cultivar trials, and educate the staff on the operation of the irrigation system. This was all done successfully, however a few days later there was a large rain event and enough subsequent seed wash to warrant the trial area be sprayed out and fully prepared to start again.

Back again, at the start of December 2016 for a week to install turf demonstration trials, sow a small warm season football field, and build a small sand based golf green and two tees. Previously the whole area had been sand top dressed, sprayed with glyphosate, and on arrival,

scarified in multiple directions. Seed cultivars were gathered in, a trial plan designed [randomised, with three replicates] and seed cultivars weighed out and placed in small paper bags. Trial grass species included; Tall Fescue, Perennial Ryegrass, Fine Fescue, Poa Pratensis, Creeping Bentgrass, Kikuyu, Carpet Grass, Bermuda Grass and Poa Trivialis. Once areas were measured, fertilised, pegged and stringed out, the sowing could take place. Each square was separately raked in two different directions. An irrigation programme was then set, and fingers crossed there would be no tropical downpour for a couple of weeks.

A small junior sized football field was also prepared, and sown in Princess 77 Bermudagrass, as were two golf tees for a small par three golf hole. The football field will also serve a purpose of being used for autumn over seeding trials in the future. The sand based green was sown in equal quarters of A1, A4, Pure Distinction and Arrowtown.

A few months on and the football field and golf hole have established really well, as has much of the trial area, with only a few smaller parts of it needing a re-seed. It is an ongoing project that just keeps looking better on each visit. Once the trial area is fully established it will not only be used for regular scoring on the performance of the individual cultivars, but also as a place to bring clients and showcase the investment the company is committing to research and development.

CITY CARE CHRISTCHURCH FIGHTS FIRES



City Care team member Dean Middleton applying a fire retardant up in the Port Hills

On Monday 13th February the Port Hills area in Christchurch was hit with two separate fires several kilometers apart. Fires raged through the hills over a number of days and nights affecting over 89,000 residents who lost power for hours and 11 families who lost their homes. Residents in suburbs surrounding the Port Hills were evacuated and were only allowed to return to their homes on Wednesday the 22nd of February (9 days from the initial outbreak at Early Valley Road). The newly opened Christchurch Adventure Park was on the list of areas that were severely affected. By the end, over 2075 hectares

(90% private land owned) were burnt to ashes, the cause of the fires are still unknown.

During the nine days of fighting fires, over 40 City Care staff ranging from mechanics, administration staff, engineers, landscapers and hydro seeding staff were employed like many other personal around Christchurch to combat the blaze.

The fire service used more than a dozen helicopters with monsoon buckets to douse the flames with water while wing planes and one hydroseeder was used to spray fire retardants.

City Care Christchurch had recently purchased a Bowie 1100 hydroseeder through PGG Wrightson Turf Territory Manager Grant Bunting. Brian Keown Landscapes Manager and Fire chief for City Care Christchurch mentioned that the Bowie 1100 proved to be a great asset in applying a fire retardant from the huge cannon and a great mixing tool. The Bowie 1100 ended up working for eight days on site which turned out to be 12-14 hour days. Brian mentioned the Bowie 1100 cannot only be used as a hydroseeder, but now used for dust control, water truck and for fighting or suppressing fires!!



Following the fire there has been a huge focus in revegetation, soil sediment and erosion control in which City Care and PGG Wrightson Turf partner together to be involved in the natural restoration of the Port Hills.

SPARTACUS PERENNIAL RYEGRASS



Bill Walmsley
Turf Agronomist
PGG Wrightson Turf

Spartacus is a new turf type perennial ryegrass cultivar from PGG Wrightson Turf that is now available in commercial quantities. It is a medium dark green cultivar with good density and fineness. It is an improved Centurion

type suitable for elite sportsfields, cricket pitches, and lawns or blending with winter active cultivars for a slightly darker colour.

Spartacus is not a true winter active type like Colosseum and Arena I, but it is growthy in winter and not far behind the winter active sportsfield types. Winter growth is measured by a combination of visual growth scores and rising disc grass height measurements. Spartacus has a rapid establishment rate which is useful in cricket pitches, lawns and sportsfields.

Spartacus represents a new standard for melting out disease resistance being a top performer against melting out disease in two Auckland trials.

AUCKLAND TURF RYEGRASS PLOT TRIAL 2016

Scored 15 Feb 2017

ABSENCE OF MELTING OUT DISEASE

Cultivar	Mean
Sparticus	8.0
PGW breeding	7.0
PGW breeding	6.3
PGW breeding	6.3
PGW breeding	6.3
Standard	6.0
PGW breeding	6.0
Standard	6.0
PGW breeding	5.7
PGW breeding	5.7
PGW breeding	5.3
PGW breeding	5.3
Standard	5.3
Standard	5.0
PGW breeding	5.0
PGW breeding	5.0
PGW breeding	4.7
PGW breeding	4.7
Standard	4.3

It is pleasing to see local breeding and selection making progress on our most troublesome disease. In fact Spartacus performs outstandingly in our Auckland trials for year round quality and density, indicating good adaptation to heat and humidity.

Spartacus has been used on cricket pitches at Hagley Oval where its rapid establishment and attractive colour have given a pleasing result.

Spartacus was bred by plant breeders Dr Alan Stewart and Louise Carpenter based at Kimihia Research Centre. It was bred by crossing winter active perennial ryegrass from Algeria and Spain with dark fine perennial ryegrass from USA and Europe. Another feature of Spartacus is that some plants in the breeding cycle contained the Staygreen trait. It has undergone four cycles of selection in New Zealand.

Bill Walmsley



SPARTACUS



Spartacus newly germinated

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