

Turf Clippings

SPRING 2014

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On behalf of PGG Wrightson Turf we would like to wish George Tothill all the very best in his move to Australia and would like to acknowledge the effort and dedication he has given our business. Many of you will not be aware that George has been with PGG Wrightson and its predecessor companies for over 30 years now beginning his career as a “mail boy” for PGG in Christchurch. George has been a key member of our team and a respected manager of our New Zealand turf business, his enthusiasm and respect for the industry and clients is well regarded and he will be sorely missed. In saying this we are very lucky to have George head up our Australian business and look forward to seeing his progress in this exciting market. Congratulations George and good luck for the future!

WELCOME TO THE SPRING EDITION

Welcome to the spring edition of Turf Clippings 2014. Winter this year has been mild, and in places wild with record rains in the North, plenty of wind and warmer than usual almost everywhere. Whatever the reason, reps and logistics report an earlier and busier start to the season, with much inquiry this spring so far.

2015 is the year of the ICC Cricket World Cup in Australasia and 7 venues across New Zealand will be preparing for this in their upcoming planning. This World Cup is being shared fairly and squarely with Australia and will be show-casing New Zealand to a worldwide audience of 1/5th of the world’s population. PGG Wrightson Turf sees this as an exciting event for New Zealand and the advancements that this will bring turf managers involved, and we are excited to be involved where we can.

In this newsletter, you will be able to read about two new golf developments (Peninsula and Manukau Golf Club’s) that PGG Wrightson Turf are involved in, follow Joe Johnson’s involvement in preparing Forsyth Barr stadium for the England test match and hear about the fine turf seminar in Paihia, including a field trip to Kauri Cliffs. North Harbour, and Mt Smart stadiums are featured with their two new turf managers (Bede O’Connell and Joe Hollier), and hear about the development of Hagley Oval, a key venue in the upcoming ICC Cricket World Cup. We hope you enjoy the read.

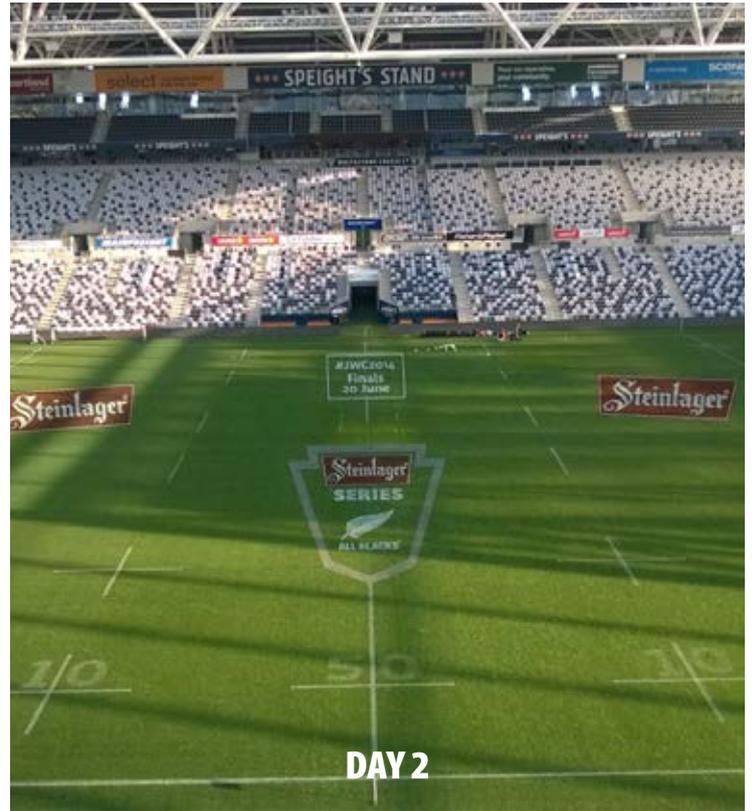
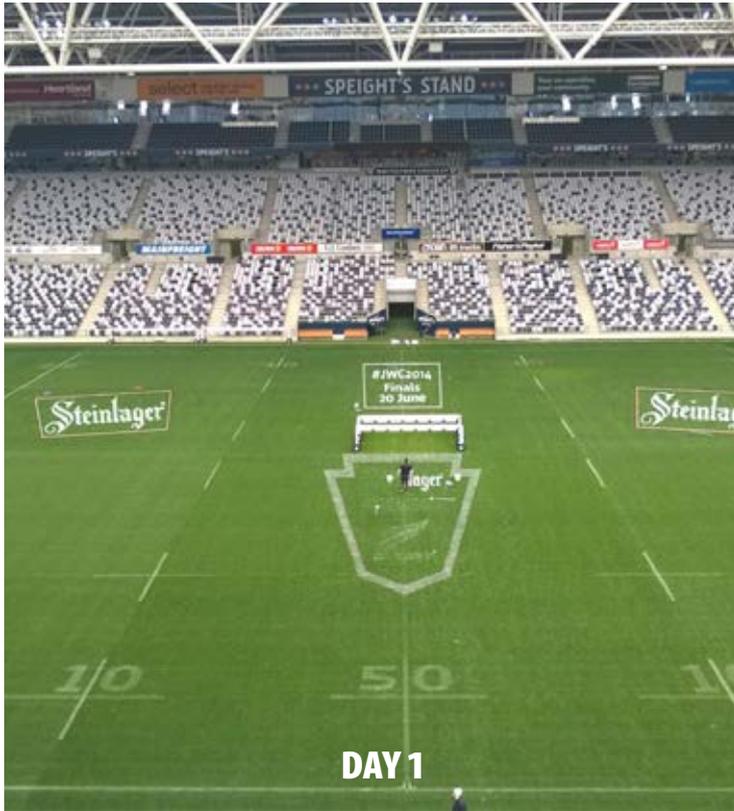
Most will now have heard that I am moving to a role in our Australian business as the Australian Turf Manager after nearly 14 years in turf in New

Zealand. During this time we have seen the PGG Wrightson Turf business grow from just two representatives, to 10 in New Zealand, and 4 in Australia, plus the addition of two Australasian Agronomists. It has been fun building this business and I, along with the team in New Zealand, are proud of the depth of business we have built here, and I hope I can take some expertise found in the New Zealand market place with me to Australia. I would like to take this opportunity to thank you all for your assistance, friendship and business over the years, and to wish you all the best with your business’s in the future. If anyone finds themselves in the Melbourne area, please make sure you are in touch; it’ll be great to see a friendly face from home! Best regards to you all.

George Tothill
Sales and Marketing Manager



FROM THE GROUND – ALL BLACKS VS ENGLAND TEST MATCH



With the All Blacks test matches looming and having a background in greenkeeping (only on golf courses), I thought it would be a great opportunity to “scratch the itch I can’t quite reach” and get back on the tools and physically help out at Forsyth Barr stadium for a few days leading up to the England vs All Blacks test match. I arrived at the stadium 4 days out from game day and have managed to take photos from the same spot, at the same time every day, so you can see the field take shape. Here is a brief diary of what I got up to during my time at the stadium:

WEDNESDAY 11TH JUNE :

Day 1: In anticipation for what I was going to be doing on my first day at Forsyth Barr Stadium in preparation for the test, I was intrigued by what it takes to prepare a facility for a test match, let alone what it is like for the Turf Manager Brendan Eathorne to work with the Desso Grassmaster system.

My first job was to assist in traffic and crowd control. This involved setting up fences and road cones to direct where crowds and vehicles would go. That took up until 10am. Whilst we erected the fences, new apprentice Mike Watson was mowing the field and the logos on the field were also being stenciled in (all 9 of them).

With the All Blacks scheduled to practice on the ground on Thursday, my task for the afternoon was to assist in marking the ground out. This involved string lining as well as the measuring of the “crosses”.

Final task was to move the growth lights into position for the evening.

THURSDAY DAY 2:

To arrive at the stadium in the cold dark morning to realise all the fencing we had erected had been blown all over the car park was not the morning I was expecting to walk into. None the less, we got straight into fixing the problem. With the All Blacks due in at 9am for a training session, the field was prepared the evening before.



The logos were still being applied to the field, so the only tasks we needed to do were to erect the post pads as well as the sideline flags. During the training session, David Howard from the NZSTI was doing field tests to compare the surface’s firmness, moisture levels, soil temperature and traction compared to the how the surface was during the Bledisloe cup last year. Following the training session we realised the wind had blown





DAY 3



DAY 4

the fencing again, so we added extra weights to prevent them shifting again.

After the All blacks had finished for the morning (due back in the afternoon) there was a liquid fertiliser applied to some isolated areas where the growth lights had been. The All Blacks arrived again later and we stayed around to measure how the field was after their training session, as there was a game played as well and it was a more intense field session.

FRIDAY DAY 3:

The field was single cut in the morning. With the captains run for both teams due, we had to set

the field up. This included putting up the post pads as well as the sideline flags. These flags and pads arrived in a container along with a lot of other match props the day prior. The afternoon involved assisting the other "operations" staff in erecting fences for crowd control as well as checking things over for safety purposes.

GAME DAY:

This is the day that all this work has gone into – for 80 minutes of rugby. Fortunately tasks for the day didn't entail too much. Whilst the field was being double cut, I helped Brendan in remarking the lines on the field. Following marking the

lines, one of the last jobs to do was to paint in the numbers for the 22m and the 10m lines.

Around 6pm the crowd started to flow in through the gates. 28,000 people packed into the stadium for a sold out All Blacks vs England test match. 7:30pm when the All Blacks ran onto the field, the roar of the crowd is something that just sends vibrations right through your body and it just made me feel so proud to be a part of such a great sporting event .

In conclusion, I didn't know what to expect working the week down at Forsyth Barr Stadium. With a golf background and having worked with grounds staff at events like the British Open and the Presidents cup, working at Forsyth Barr Stadium for a few days leading up to an international rugby test was a completely different experience. A phenomenal experience that I really enjoyed and if the opportunity arises for anyone in the turf industry, I suggest you take it. It was great to get a sneak peak into the logistics and the preparation and variety of tasks that goes into the set up of such an event.

I would like to thank all the staff at Forsyth Barr Stadium, with a special mention to Turf Manager Brendan Eathorne for creating the opportunity and for his guidance throughout the week.

Joe Johnson
Technical Turf Representative





Field trip to Kauri Cliffs

Just over 12 months ago the Northland Superintendents Association was approached to host the North Island Fine Turf Seminar. An organising committee of 8 was formed. The committee was made up of six Northland Superintendents and two trade representatives who service the Northland region. The group met regularly and good lively debate in the planning stages was had around a format, topics and guest speakers. We also had to make sure we offered value for money for delegates and trade.

Having not hosted a conference since 1997 the Northland Superintendents Association were very focused on offering a unique Northland experience with quality education, good food, and a relaxed atmosphere at a venue that meant the entire group would stay together for the whole two and a half days.

Northland is well known for being the most prolific disease, insect and weed intense area of the country with both warm and cool season turf varieties. Thus giving turf managers many

day to day challenges, so it was decided to focus the topics on some of these issues with chemical applications being the main area of control.

The speakers who kindly gave their time were all excellent, and it was great to have a mix of top international experts alongside good New Zealand stalwarts. Presentations were of a very high standard and varying topics were covered from old favourites such as the acid theory, calibration, and the hot topic of the moment growing degrees days.

Obviously no trip to the Far North by a group of turf delegates would be complete without a trip to the world renowned Kauri Cliffs. The field trip to Kauri Cliffs was also blessed with some fine Northland weather, which was a miracle itself after 11 inches of rain over the previous 7 days. Andy Wood, Golf Course Manager and Northland President, gave us a guided tour, and discussed various turf management techniques, from *Poa annua* management to recent construction which has taken place.

On the final evening of the conference everyone settled down for the awards dinner. The highlight was Alan Smithyman from the Waitangi Golf Club receiving a well deserved Distinguished Service Award after 45 years in the industry. We were then entertained by Ian Jones, former Northland and All Black rugby great. He was very well received, with his hilarious stories of fellow players and coaches, continuing the relaxed, fun theme of the entire conference.

Being involved on the organising committee was a great experience. Although there were a few challenges, there seemed to be just as many laughs!! It does eat into your time, and creates its own challenges, but when the conference starts and you see the team's work and planning coming together, it is definitely worth it.

Brian Griffiths

PGG Wrightson Turf

**N.I.F.T.S Organizing Committee Member
Northland 2014**

HAGLEY OVAL – CWC 2015 AND BEYOND



Final stages of the project construction as the pavilion and embankment take their final shape

With the roof of the new pavilion finally in place and the embankments all grown in, ground staff at Hagley Oval are putting on the final preparations for another exciting summer of cricket ahead. Turf Manager Rupert Bool and his staff Ash Head and Steve Tsukigawa are in the unique position of being able to host the opening game of the 2015 ICC Cricket World Cup which is a massive opportunity to showcase this magnificent venue. Even more exciting is the opportunity to take ownership of an international cricket venue long overdue in the city of Christchurch.

Just over 2 years ago the final resource consent was granted by the Environmental Court and with appropriate funding allocated; Project Manager Andrew Rutledge from Parks & Recreation Infrastructure Consultants Ltd and Mexted Contractors from Wellington began in earnest in what turned out to be a unique challenge for everyone. Strong public opinion and weather all played their part throughout. Rupert states the greatest challenge throughout the project was no

doubt the public opposition and the fact that they still make their voices heard!

The early decision to utilise the bird and insect deterrent Avanex® technology ryegrass in this project was a no brainer for those involved. "The rapid establishment of the Avanex® Colosseum outfield gave us the confidence that the outfield would withstand the early wear and it was able to do so with ease" states Rupert. The ground was sown down in November 2012 with club cricket beginning within 8 weeks and first class cricket in 12 weeks.

Fast forward 12 months into 2014 and during the construction of the embankments, a massive rain event in early autumn resulted in PGG Wrightson Technical Turf Rep Jason Weller and Rupert getting together to revise the seed blend to be used on the embankments. The decision to move away from an initial low maintenance ryegrass/fescue/browntop mix and use Colosseum ryegrass was made to ensure there was a good germination over winter. "Time was of the essence to us pre Cricket World Cup and I

am happy we switched the seed mix over, given the cover we have in early spring, we can always drill in fescue at a later date after the World Cup is over" states Rupert.

Having a full sand construction outfield is another challenge they face, but having the right tools to maintain this has made the job just a bit easier. "The key to the density is regular granular feeding, Bi-Agra™ (moisture retaining wetting agent) and the use of Primo Maxx® which allows our turf to use its reserved carbohydrates for tillering out and setting down deep roots" says Rupert.

PGG Wrightson Turf is proud to have been given the opportunity to work with Rupert and his team throughout this project from its inception and we must pass our congratulations on to all those involved in this project from day one. We are not that far away from seeing the true potential of this amazing venue and what it will do for the people of Canterbury!



The 1st First class game being played on Hagley Oval, Jan 2013

TURF CONFERENCES



PGG Wrightson Turf staff dinner at our annual turf group catch-up



Mark Stidwill preparing for dinner!



The changing face of Mt Hutt



A Tiki tour for the international



PGG Wrightson Turf staff with their awards



Jason and Joe at the Holiday Parks Conferen



PGG Wrightson Turf staff training during the annual turf group catch-up



A windy day's golf at Terrace Downs Golf Course



Members of our team



International members of our team in the upper Rakaia Gorge



The Turf Team at the annual Turf Group catch-up at Terrace Downs Canterbury

NEW COURSE AT PENINSULA GOLF CLUB



Overlooking the 18th green down to the 8th tees

Grant Puddicombe, the Managing Director of Puddicombe Associates sits down with Bevan Houghton and answers some questions about the new Peninsula Golf Club and how he got into the golf industry.

What has been the main challenge so far with the redevelopment?

"By far the biggest challenge of this project has been the environmental requirements to meet the consent. We require 27 silt ponds on the site and they always tend to end up in the worst locations. Each pond can take 2-3 weeks to construct and we continually need to work around them and then try to systematically reclaim them afterwards without leaving evidence."

What have been the best things so far about the new development?

"The best thing far and away is the piece of land that the club has purchased; it has many elevation changes and each hole is going to play very differently. Also the start of the project; there has been a lot of hold ups over the past few years. I have been involved with the project since 2008 and it feels very good to finally be starting and seeing the course take shape".

How is the new course progressing?

"I am comfortable where we are at so far, as we kept to schedule over the short construction

period that we had. We were helped however with the long fine summer, I am always hoping to go a little faster than I set out in my plans, however we had some logistic issues in getting some materials on site especially with the distances they had to come and the rough weather we ran into towards the end of the season, but all in all I am happy with where we are at".

How did you get into the golf industry?

"My father Sid has been in the golf game all of his life, he started in 1947 as a golf course superintendent.

As a 12 year old I started on the course and I have never worked in any other industry other than golf. In 1981 Dad started a design and consultancy business and in 1986 my brother

Mark and I started the construction arm of Puddicombe Associates, and to this day we have always been a design and build company. We understand the needs of turf managers in maintaining the designs we produce and how hard it is to manage the different areas of a golf course."

Quote

"The best thing about what we as a company are doing now is the full involvement in the design and build of our projects. We have been doing this since 1989 and it gives us a great opportunity to showcase the full package that we have to offer".



Excavating the irrigation pond

NEW COURSE AT MANUKAU GOLF CLUB



Looking at the new 16th green

Phil Tataurangi sits down with Bevan Houghton and answers some questions about the new Manukau Golf Club project and how he got into golf course design.

What has been the main challenge so far with the redevelopment?

“Building every feature on the course. The course is based out at Ardmore in Auckland on a relatively flat site with only 6m of fall over the 63 ha site. The key component, as it is on all golf courses, is drainage. By changing the topography and creating a new landscape for interesting golf, this has enabled us to massage the contours to complement our hydrology model.

I’ve thoroughly enjoyed the challenge this has presented as it has opened up opportunities for some quite unique features. Once completed



Phil standing on the new 17th green

there will be quite a cool engineering and construction story to tell.”

What have been the best things so far about the new development?

“The fun I am having with the guys out on site for sure. After playing professional golf, largely an individual sport (outside of my support staff), the feeling of being part of the team has been great. I’ve really enjoyed working with the guys from T.I.C Projects sharing my philosophies around golf course design and learning from theirs. After talking through the desired and intended strategies for each hole, combined with the “bump and run” style of play we hope to achieve, I’ve encouraged the guys in the field to be creative and “have a bit of go” whilst shaping certain features. The rest of the team from Reids Contracting, H&G, Parklands, NZSTI, Perry’s and you guys at PGG Wrightson Turf all play an important role as well, so cumulatively there are a number of us working together on the project.

How is the new course progressing?

“I’m really happy with how the course is coming along. The 1st stage was always going to be a feeling out process meshing our design vision with the construction methodology. Yet, I can honestly say the first 8 months has gone very well. Observing and respecting the existing landscape behaviour in different weather conditions whilst quite literally building the course from the ground up has presented numerous challenges. However,

we have done well and now look forward to stages 2 & 3 this upcoming season. The extended run of fine, warm weather last summer and into the autumn provided us with ideal conditions to start the project”.

How did you and Brett (Brett Thompson – RBT Design) come together for this project?

“A friend and former business partner, Greg Kenward assisted Fletcher Residential when talks first started with the Manukau Golf Club. He had worked with Brett before when he was the lead Golf Course Architect at Darby Partners and had approached him to join the team. Greg was aware of my passion and interest in design and asked whether we would consider working together on the project. Through mutual friends and work colleagues Brett and I had spent some time together when he was designing The Hills and Jacks Point.

Throughout my time playing on the PGA Tour I valued the time spent with the Tour Design Team and Agronomists on the construction and redesign of some of TPC Courses. As a player I relished the experience of being on site through the construction phase at a course we would eventually play in a Tour Event.

The insight garnered from some of the best in the industry has been invaluable as I form my own philosophies and approach to golf course design. Brett and I have a very clear vision for this project and we look forward to seeing how it turns out.



Mt Smart Stadium in all its glory days prior to an NRL match between Warriors and Penrith Panthers

Recently Phil Gould caught up with Bede O'Connell (Mt Smart Stadium) and Joe Hollier (North Harbour Stadium) to discuss their new roles working for Field Turf NZ in charge of the respective stadiums. He asked them a few questions about what they do and the current challenges that they face working at a stadium that features live Rugby and Rugby League games.

What have the challenges been in taking over management of the stadium?

BEDE: Definitely the usage hours the venue gets. We manage 5 fields at Mt Smart and have 4 different tenants on site who we provide training facilities for. While the Warriors are the biggest tenant with 4 teams, we also have Auckland Athletics, Auckland Football Federation and the Oceania Football confederation. While the NRL season is our busiest time, we also have trainings on each field 7 days a week. Managing these fields with this usage is our biggest challenge.

JOE: For me it has been a relatively easy take over. When I started four of the fields at North Harbour Stadium were being reconstructed. Two of them into couch, one becoming artificial and the other a renewal of artificial surface. So the biggest challenge for me was learning all about the management and maintenance of the artificial as I hadn't had much experience with them before.

What has been the best thing about starting at your Stadium?

BEDE: The staff here are great to work with and

are our biggest asset. We were fortunate to inherit about 40 years of experience when we took the contract over; I've never had to look too long for a valve box or water main. I also enjoy the variety of concerts as well as sporting events.

JOE: Starting new challenges and working with a great team of guys.

What is your history with stadiums/what is your previous experience?

BEDE: I studied Turf Management through Otago Polytechnic and was fortunate enough to get summer work placements at Eden Park. Once I graduated I was offered a job at Eden Park where I spent 3 years. From there I had the Assistant Turf Managers positions at Seddon Park, Hamilton and Westpac Stadium/Basin Reserve, Wellington. I started in this position in November 2013.

JOE: I started working in the turf industry in 2003 as a cricket apprentice with Recreational Services. From there I moved onto Eden park in 2007 as a Grounds Assistant. After this I spent two years in Hamilton as Assistant Turf Manager

at Waikato Stadium in 2011. Finally finishing up in my current role at North Harbour Stadium in November last year.

How are you going to improve the playing surface? Do you have any major projects planned?

BEDE: The Number 1 Field at Mt Smart is being resurfaced in December 2014, following the Rolling Stones concert. The top will be removed and re-laid with couch giving us a more stable playing surface that will also withstand the busy concert season approaching.

Field 3 is currently undergoing a complete reconstruction, with a fully drained, irrigated couch sand profile being constructed; the field will have full training lights and become the NRL Warriors main training field. This should be operational by November 2014

JOE: With the FIFA U20 World Cup coming to New Zealand next winter the whole surface is getting overhauled. It will be transformed into a couch field and transitioned into ryegrass for the winter season.



North Harbour Stadium prior to an Auckland Blues Super 15 match.

NEW APPOINTMENT: TROY JORDAN, PGG WRIGHTSON TURF (AUSTRALIA)

PGG Wrightson Turf (Australia) is very pleased to announce the appointment of Troy Jordan as Turf Territory Manager for Victoria, Tasmania, South Australia and Western Australia. The company markets turf seed on a wholesale basis, so Troy's main role will be to liaise with turf retail clients and provide technical support to them and their clients in the sportsground, golf, racing and other amenity turf areas.

Troy began his career in turf management in 2003 preparing cricket wickets and sportsgrounds at private schools and local grounds around Melbourne's inner east. In 2008 he moved to Etihad Stadium as a groundsman under Gavin Darby, at the same time completing his Diploma in Sports Turf Management at NMIT. In July 2011 he was appointed Head Turf Manager at Dunedin's newly-completed, state of the art, fully roofed arena (Forsyth Barr Stadium). The pitch was the first in the southern

hemisphere to use the Desso Grassmaster system and the first stadium in the world to grow natural grass under a fully closed roof. The quality of the stadium and the playing surface has attracted enormous praise, as many stadium turf managers would know. It hosted four games of the 2011 Rugby World Cup, along with Super 15 and local ITM Cup rugby, rugby league fixtures, both A-league and International soccer, as well as concerts such as Elton John, Aerosmith and Paul Simon. Troy left Forsyth Barr earlier this year to move to the PGG Wrightson position back in Australia, but in between he was contracted by the STRI to provide turf consultancy at the 2014 FIFA World Cup in Brazil. He was based at the Corinthians Arena in Sao Paulo for two months, overseeing the local turf management team for six World Cup matches, including the opening ceremony, the opening game (Brazil vs Croatia) and the semi-final between Argentina and Netherlands.



On his return from Brazil in July, Troy commenced his role with PGG Wrightson Turf, and is based in Melbourne. He can be contacted on 0061 447 744 748, or at tjordan@pggwrightsonturf.com.au.

WHAT HAPPENED TO THE TRUCK?

What did happen to the hydro seeded truck we had at the New Zealand Turf Conference in Hamilton 2013?

The truck is currently parked on the side of a driveway (facing downhill if the need arises to take it for a drive!) at Greg and Karen Crake's property on the southern side of Pirongia Mountain in the Waikato.

The truck was part of the PGG Wrightson Turf display at last years NZ Turf Conference. PGG Wrightson Turf won the Best Trade Stand Award and we certainly got a few people talking about this creative display. We even had enquires from America after a Facebook post.

The double sided sticky tape (used to fasten a cloth on the truck) still remains on the paintwork, along with PGG Wrightson Turf signage on the side windows. Although the tyres are sparkling new with plenty of tread; the motor runs rough



and the truck does not venture far from its resting spot on the side of the hill. This is probably why we can confirm that we also have grass growing on the deck and the inside cab of the truck!



PGG WRIGHTSON TURF SUPER 15 PICKS COMPETITION WINNER

After 22 weeks of outstanding Super Rugby, and with over 85 client participants (ranging from golf course and councils through to stadiums and contractors) battling it out to win, we are pleased to announce Ian McKendry as winner of this years competition. In the end it came down

to the last week of play to declare Ian the winner, as leading into the final round he was only 4 points ahead of Fulton Hogan (after they had made gains on him over the previous 4 rounds). Fulton Hogan achieved 4 points after the final and Ian got the sole 1 point, which was enough

for him to take out the title.

Thanks to all who took part and we hope you enjoyed it as much as we did. To take part next year, be sure to get in touch with your local Turf Rep before the season kicks off.

THE FINE FESCUES



Bill Walmsley
Turf Agronomist
PGG Wrightson Turf

The fine fescue species most commonly used in New Zealand are Chewings fescue and strong creeping red fescue, different forms of the species *Festuca rubra*. They are available individually, but most commonly they

are available in a blend such as 'In the rough' which is a blend of Survivor Chewings fescue and Merlot creeping red fescue. A blend of the two species is suitable for most general purpose turf, since creeping red fescue fills in and prevents Chewings fescue from becoming clumpy. It's also likely that when one is showing a weakness the other is not.

Advances in plant breeding have meant that typical differences between the species in the past are less evident. The best fine fescue cultivars exhibit excellent quality and the species are difficult to tell apart as mown turf. Fine fescues are increasingly being used in all manner of high and low maintenance situations, so it is useful to note the strengths and weaknesses of the different species available.

Chewings fescue has a reputation for having the best turf quality, the highest traffic tolerance and very good red thread resistance. The better strong creeping red fescue cultivars are now equal with Chewings fescue in these characteristics, but poorer cultivars are much weaker. Good Chewings fescue cultivars have higher density than strong creeping red fescue. Chewings fescue has greater shade tolerance and tolerance of close mowing. The cultivar "Survivor" has replaced Silhouette.

Strong creeping red fescue has better winter colour than Chewings fescue. The cultivar "Merlot" replaces Jasper II. In our trials we found "Merlot" strong creeping red fescue had outstanding red thread resistance.

Fine fescues have a limited adaptation worldwide. They are best suited to mild coastal climates with year round rainfall. In New Zealand they are best suited to low fertility sites that are not too droughty. They do well on silty and clayey soil, but only do well on moist sand. They readily disappear with drought on dry sand and gravels. Fine fescue has poor heat tolerance in climates hotter than New Zealand. In regions with extremes of heat and humidity they do poorly and are badly affected by disease.

Hard fescue has excellent turf quality, good performance against many diseases, shade tolerance as good as Chewings fescue, and excellent tolerance of drought and low fertility. Unfortunately speed of establishment is slow and it is often out competed by most other species in a mixture. It is best sown alone or with only a light rate of other grass. Once established its slow growth is ideal for bunker faces or other costly to maintain areas. The cultivar "Predator" has performed well in trials.

Hard fescue has good performance against many diseases, especially against red thread and dollar spot diseases, exceeding Chewings fescue on average. Plant breeding has resulted in cultivars with excellent turf quality year round and with good colour retention in both summer and winter. Summer colour and density is outstanding. It is the best species for heat tolerance. Shade tolerance is as good as or better than Chewings fescue. Hard fescue is tolerant of drought and low fertility but not on droughty sand.

Sheep fescue currently does not have the turf quality of hard fescue, but it is also tolerant of drought and low fertility. Many sheep fescues have a blue colour that is compatible with bermudagrass. Sheep fescue seed is only imported to order.

Fine fescue is increasingly being sown in rough areas receiving little or no mowing where the seedhead is a feature of the area. While all fine fescues can look attractive unmown and produce an attractive seedhead, tall growing seedheads are susceptible to lodging, where the seedhead falls over and lays flat. Chewings fescue is a good choice for this situation because it has a shorter seedhead that is less susceptible to lodging. Strong creeping red fescue has a taller seedhead and a tendency to lodge. Hard fescue has a compact upright seedhead similar to Chewings fescue.

Lodging differences between species tend to be much less than differences in management. Mowing or the application of a growth regulator such as Trinexpac-ethyl at the first sign of heading, can result in shorter and more upright seedheads and a reduced tendency to lodge.

Some of the interest in fine fescue can be attributed to its resistance to the herbicide haloxyfop, which controls *Poa annua*, browntop and a number of other grass species in fine fescue. Unfortunately resistant strains of *Poa annua* can rapidly develop. Changing to another herbicide in the same "Group A" resistance class such as Fluazifop-P-butyl (Fusilade Forte) will not control the resistant strains. Only changing to a herbicide with a different mode of action in another resistance class will have any effect. In my trials two herbicides in the "Group B - ALS inhibitors" class, Idosulfuron-methyl (Hussar at 75g/ha) and Halosulfuron-methyl (Sempra at 7g/ha), have performed satisfactorily in controlling *Poa annua* in fine fescue. Unfortunately herbicides in this class are also at high risk of developing resistant strains, but having herbicides with a different mode of action provides the opportunity to alternate modes of action to help delay resistance.

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