

DuraVeg[®] Bulletin

EDITION 8 - AUTUMN 2023

**Proven systems that reclaim
and restore environments.**

Experts from earth to turf.

Bulletin

Edition 8 - Autumn 2023

Welcome to the Autumn edition of our PGG Wrightson Turf – DuraVeg® Revegetation and Erosion Control Bulletin.

There have been challenges with project continuity due to the varying weather conditions across Queensland, but the use of ProGanics DUAL has been helpful in maintaining stability for infrastructure projects. A variety of products have been utilised during the wet season, including DuraVeg Wood and Wood + Tack, ProMatrix, Flexterra, and both ProGanics products. Additionally, we are pleased to report that there has been a steady supply of DuraVeg FM for major mining projects in the Northern Territory. With the dry season approaching, it looks like there will be increased demand for DuraVeg FM in the mining industry.

We are pleased to report that despite the challenges posed by the wetter than normal summer period in the southern states, the full range of Profile products has been put to use on various projects, from backyard landscaping to major infrastructure projects such as the NSW M12 Motorway, the Victoria Healesville-Koo Wee Rup Road upgrade, and the Thomas Foods International Processing Plant in South Australia. It's also great to hear that our Australian made DuraVeg wood fibre products are being well received by contractors, with the DuraVeg Wood+Tack product being highly regarded for its ease of mixing and overall performance.

Over the past six months, New Zealand has experienced several weather events that have caused significant environmental issues. These events have had detrimental impacts on various aspects of the country's environment, including soil erosion, sedimentation, water quality, and biodiversity.

One such weather event was the intense rainfall and flooding that occurred in various regions of New Zealand. In February 2023 heavy rainfall caused widespread flooding across the North Island, resulting in soil erosion and sedimentation issues. The excess rainfall caused rivers and streams to overflow, resulting in sediment-laden water flowing into water bodies, affecting water quality and aquatic ecosystems. This event led to the loss of topsoil, damage to vegetation, and disruption of local ecosystems, resulting in negative impacts on the environment.

These weather events highlight the vulnerability of New Zealand's environment to extreme rainfall and the need for effective erosion and sediment control, as well as demonstrating how other measures for climate change adaptation and resilience are crucial to protecting New Zealand's environment and ensuring sustainable land and water management in the face of changing weather patterns.



Oliver Norton
Business Development Manager
Australia



Joe Johnson
Business Development Manager
New Zealand

Experts from earth to turf.



Sustainable revegetation

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LAWN AND TURF CONTRACTING LTD DOING THE APPLICATION OF PROGANICS ESM

Waikato Expressway Case Study

The Waikato's largest roading project is now open with the Waikato expressway's Hamilton section having opened in July 2022. The benefits of the expressway for commuters include:

- A reduction in travel time between Auckland and Tirau by 35 minutes
- Significant reduction in the number of fatal and serious injury crashes
- An increase in the highway's capacity and passing opportunities
- A reduction in traffic congestion in smaller communities like Huntly, Ngaruawahia and Cambridge
- A reduction in fuel costs and emissions

- An increased contribution to economic growth

On the Tamahere section of the 21.8 km expressway is a wall that provided the CityEdge Alliance (Alliance formed for the construction of the project) a new set of challenges.

DuraVeg was contacted to conduct a soil test on the North and South ends of the wall and the results highlighted deficiencies in organic matter and phosphorus and that the texture was a Sandy Loam.

Due to the steepness of the slope, traditional 300 mm of topsoil was not an option and ProGanics Biotic Soil Media was used as an alternative to topsoil to create an

environment to sustain vegetation and increase organic matter at the application rate of 5600 kg/ha.



The Mangaharakeke Mesh Wall



Completed Flexterra HP-FGM application



4 WEEKS AFTER APPLICATION

Lawn and Turf Contracting Ltd – a family-owned business in Waikato, New Zealand, were contracted to complete the execution of the work. The ProGanics application equated to 15 x Finn T120 hydroseeding truck loads.

Following the application of ProGanics, the project required 100 mm of topsoil, so a cell system was installed, and topsoil infilled the cells. Following topsoiling, Flexterra HP-FGM was applied at 4000 kg/ha. This provided complete erosion control while the specified seed blend was establishing. The seed blend consisted of the newly commercialised New Zealand native grass seed - Stewarts Slender Poa (*Poa imbecilla*) as well as a perennial ryegrass (*Lolium perenne*) and white clover (*Trifolium repens*). The addition of Di-ammonium Phosphate (DAP) was included in the hydroseeding

slurry to supplement phosphorus levels which are critical for root development.

A successful project where all five fundamentals of successful revegetation were followed.

Soil testing to understand the substrate, which provided a prescribed solution to create an environment to sustain vegetation.

This was followed by species selection. A part of the selection process was the requirement of a native seed species. This was favourable for the use of Stewarts Slender Poa. Due to the slow establishment of the species, perennial ryegrass and white clover were selected for the fast-establishing properties for faster stabilisation of the area.

Flexterra HP-FGM was selected as the hydraulic erosion control product due to the steepness of the slope and its ability to

provide near perfect erosion control. Flexterra is also a suitable medium to establish vegetation from seed due to its ability to hold 1700 x its weight in water as well as having the functional longevity of up to 18 months while vegetation is being established.

Lawn and Turf contracting Ltd executed the installation of the ProGanics and Flexterra as per the manufacturers guidelines and specifications. They followed up with regular inspections to ensure the desired outcome was met.



A close up of the density and vegetation 4 weeks after application



Melbourne Seed and Distribution Facility

THE 20,000 SQUARE METRE FACILITY IS UNPARALLELED IN THE SEED INDUSTRY

PGG Wrightson Turfs' head office and flagship premises sets a new benchmark

for supplying the seed and revegetation industries utilising our state-of-the-art seed processing, seed and mulch storage and distribution site. Our innovative site in Melbourne is a vital link in our supply chain network and, from 2017 when the building was opened, we invested heavily in creating 'best in class' operation that is unparalleled in the industry.

PGG Wrightson Turf is heavily committed to providing innovative processing and storage to ensure quality product gets to the market, and in as timely-a-fashion as possible.

The 20,000 square metre facility includes a 1000 square metre processing room with seed-coating, an innovative mixing system capable of more than 50 tonnes per day, bagging and boxing for seed product. Next to the processing room is a 900 square metre cool room - to protect germination and endophyte levels in our seed.



Forklifts preparing seed for distribution

In the shed itself, there are over 9000 pallet spaces capable of storing 7,000 tonnes of seed and, as can be seen in the attached photos, seed storage is off the ground to protect seed from pests and vermin, damp conditions and the racking ensures it is safe for staff that work in the warehouse. It is all designed around delivering the very best quality we can to our customers. Outside the store there is plenty of room for distribution trucks to come and go, including over 250 container movements per year. The office and warehouse are home to approximately 60 staff, working in this head office facility. We are very proud of our Melbourne facility and its industry leading features and capabilities. If you are ever in Truganina in Melbourne's west, we'd love to show you through.



PGW SEEDS STAFF INSPECT A GROWERS SEED PRODUCTION PADDOCK IN TASMANIA

177 Years of Combined Seed Industry Knowledge



From left to right; Bramwell Heazlewood (50 years), George Tothill (38 years), Bruce Guy (42 years) and Murray Kelly – NZ (47 years)!

It's important to remember that the DuraVeg brand is part of PGG Wrightson Turf, who are part of the global DLF Group; the global seed market leader. And, that we

sell a lot of seed, and a good proportion of that seed is produced in Australia. Recently George Tothill (PGG Wrightson Turf Sales and Marketing Manager) joined the production team in Tasmania on their spring agronomy consultant tour to meet with growers producing seed for the Australian market. PGG Wrightson Seeds' Senior Production Agronomists, Murray Kelly and Richard Sim from New Zealand along with the local DLF Seeds production team, Rohan Wardle, Marty Toohey and Bramwell Heazlewood (Tasmanian Production Consultant) met growers with the latest agronomic advice to assist growers focusing on maximising their seed yields.

"There's a fair bit of seed industry knowledge amongst the team assembled" Murray Kelly pointed out. And when added up, amongst the 4 oldest attendees, this knowledge was over 177 combined years of seed industry experience! And as Murray Kelly continued "...if that experience

can't come up with a workable solution to assist growers in their seed production efforts – no one can!" Murray also joked that as George was the youngest at 38 years experience, "...he could open all the gates!"

The agronomy team has been instrumental in doubling Tasmanian grower's yields in the last decade – which assists the DuraVeg team in being able to provide seed for the revegetation industry at very competitive prices. Seed production in Tasmania is world leading, borne out by another interesting fact, that one Tasmanian grower has recently achieved a world record yield in his seed production efforts!

But another very important part of the agronomy team's consultation, results in being able to maximise seed quality for our seed purchasing customers, at a fair price. Being a large player in the seed industry means, what we say in our seed documentation including seed quality certificates, is what you get!

DuraVeg[®] Wood Fibre

Australian Thermo Mechanically Refined Wood Fibre

DuraVeg[®] Wood Fibre is Australian made from 100% PEFC (Good Wood) certified Australian timber. Wood chips are thermo mechanically refined through a high pressure vessel and double-disk refiner into a highly fibrelated, phytosanitized wood fibre. A durable, high performing and fully biodegradable natural erosion control cover designed for rapid hydraulic application. It includes a surfactant and defoamer, ensuring faster dispersion during tank loading and a +20% higher fibre to water loading ratio.

DuraVeg[®] Wood Fibre has excellent water holding capacity with the ability to absorb more than 11 times its own weight in water. It provides optimal conditions for propagation and sustained growth by contributing carbon to the soil, moisture for germinating seeds and porosity for developing roots. DuraVeg[®] Wood Fibre is free from matter toxic to plant growth, prohibited or restricted biosecurity matter, plant propagules, soil, rubbish, seed germination inhibitors and other deleterious material.

TECHNICAL DATA

PHYSICAL PROPERTIES	UNITS	TESTED VALUE
Maximum Slope Gradient	n/a	≤ 1:4
Minimum Recommended Application Rate	kg/ha	2,500
Maximum Uninterrupted Slope Length	m	6 m on 1:4
Cover (C) Factor	n/a	≤ 0.3
Erosion Control Effectiveness	1-C factor x 100%	≥ 70%
Functional Longevity	months	≥ 3
Water Holding Capacity	% of packed weight	≥ 1,100%
Colour	n/a	Green
Moisture Content At Manufacturing	% of bone-dry weight	10-14%
PRODUCT COMPOSITION		TYPICAL VALUE
Thermo Mechanically Defibrated Wood Fibre		≥ 99.9%
Surfactant & Defoamer		≤ 0.1%

PACKAGING DATA

PROPERTIES	UNITS	NOMINAL VALUE
Bale Weight	kg	20
Bales per Pallet	#	42
Bags are heat sealed UV stabilised plastic.		
Pallets are covered with a UV stabilised pallet cover and stretch wrapped.		

**Proven systems that reclaim
and restore environments.**

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FEATURED PROFILE

Aaron Ling

Territory Manager VIC/NSW/SA/TAS

How long have you been in the industry?

Territory Manager - Since October 2022

However, I have spent time as a Machine Operator/Supervisor on Mine Rehabilitation Projects

Where have you worked?

Goldspring Group - Civil Rail & Mining industry

Golf Renovations and Shaping Specialists - Golf Course Construction

Atlas Golf Services – Golf Course Construction

Les Russel & Son - De-Veg & Re-Veg in the Mining industry

Cypress lakes Golf Resort – Apprentice Greenskeeper

Horizons Golf Resort – Asst Superintendent

What led you to work in the revegetation industry?

My knowledge of who PGG Wrightson Turf were and exposure to them in NZ

was a driving factor. I also enjoy using my agronomy knowledge from golf course grow-ins and maintenance and I've had a love of construction machinery since I was a child. I believe this is the perfect position to combine all the aspects I've mentioned.

What is your biggest motivator?

My own fear of failure and the fact I hate losing more than I like winning

Something interesting about you...

I once did work experience as a hairdresser and I love anything fast on two wheels.

PGG Wrightson Turf Contacts

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PGG Wrightson Turf is a trading division of PGG Wrightson Seeds Ltd (PGW Seeds). PGW Seeds provides no assurance, guarantee, representation or warranty in relation to any advice, information, service, seed, endophyte, product or treatment (together Material) other than those that must be provided by law. To the extent permitted by law PGW Seeds excludes or limits liability (including for indirect and consequential loss) on any basis (including in negligence and under any enactment) from or in relation to the Material and any remaining liability shall not exceed twice the amount received by it in relation to the Material.

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