

Seed Catalogue 2020/21

Trust quality
pasture

Innovative products with measurable benefits

A seventh-generation family business, Germinal has been part of New Zealand's pastoral sector since the early 2000s. As farmers ourselves, we understand the importance of using high-quality seed that delivers measurable benefits.

Our product performance is built on the integrity of tested research and development. Germinal's research partner is the Institute of Biological, Environmental and Rural Sciences (IBERS) in Wales. This exclusive collaboration allows us to draw on world-leading science and apply it to New Zealand's unique conditions.

We have also established a plant breeding programme in Canterbury, as we recognise the importance of breeding for New Zealand, in New Zealand. This research is supported by on-farm trials throughout the country – ensuring our products perform under real-life conditions and for a range of farming systems.

Our partnership with IBERS enables us to contribute to the long-term sustainability and profitability of New Zealand's farming industry, by producing top performing varieties with unique characteristics. This has led to the development of innovative products such as AberLasting – the world's first successful cross of Caucasian and white clover, proven to withstand environmental extremes that would wipe out 70 percent of other white clover varieties.

This 2020/21 product catalogue also includes Germinal's award-winning range of high sugar grasses, which are scientifically proven to reduce methane emissions while boosting livestock performance. Farmers report the pasture is 'grazed like a mower', the lambs stay clean, the bulls are more content, and deer are reluctant to walk out for another paddock of conventional ryegrass.

At Germinal New Zealand we are proud to be a progressive company, engaging with farmers at ground level to support a thriving and environmentally-aware rural sector. Our plant breeding programme has resulted in ground-breaking products, and demonstrates our commitment to making a difference – leading the way for a sustainable future.

We look forward to helping you build a profitable business.

Sarah Gard
General Manager,
Germinal New Zealand



Benefits of Aber® High Sugar Grass Your stock will thrive on it

All farmers want their stock to thrive. Fundamental to that is palatable and nutritious pasture that can recover strongly between grazings, persist well, tolerate heavy traffic when wet underfoot and lift animal production.

Aber grasses have been developed to consistently offer:

- Improved digestibility
- Better nutrition
- Greater animal productivity
- Enduring persistence
- Environmental benefits

Benefits of Aber High Sugar Grass over standard ryegrass:

- **5% gain in digestibility³**
- **1.4 extra litres of milk per day⁴**
- **100g extra of liveweight per lamb per day⁴**
- **200g extra liveweight per cow per day⁴**



Improved Digestibility



Aber HSG varieties are more digestible because they contain lower levels of fibre and more water soluble carbohydrates¹.

Digestibility is a measure of how much of the feed eaten can be used by the animal for metabolic functions including maintenance, growth, milk production and reproduction. Digestibility is measured in the laboratory using synthetic enzymes, which simulate the digestion process that occurs within an animal. The results are used to estimate the Digestible Organic Matter in the Drymatter % (DOMD) which is commonly referred to as digestibility. Higher digestibility values are beneficial because they drive higher feed energy values and higher intakes.

Metabolisable Energy (ME) is the amount of energy an animal can derive from a feed. It is measured in megajoules of energy per kilogram of forage drymatter (MJ/kgDM). There is a direct relationship between digestibility and metabolisable energy. One percentage increase in digestibility (DOMD) equates to an additional 0.15 MJ/kgDM of ME².

The perennial diploids AberMagic and AberGreen have been shown to have a digestibility of 5.0% and 5.5% respectively higher than another commercially available perennial ryegrass³. This difference is calculated to produce an extra 1.4 – 1.5 litres of milk per day from a dairy cow⁴.



Better Nutrition



BETTER
NUTRITION

Aber® High Sugar Grasses (HSG) are bred to produce more water soluble carbohydrate (WSC) or sugar energy – delivering up to 17% more WSC than a standard diploid perennial ryegrass⁵.

As well as more sugar energy the research shows AberMagic has lower levels of fibre than control diploid and tetraploid ryegrasses and less crude protein than a tetraploid ryegrass. AberMagic's lipid (wax, oil and fat) content, another source of energy, is 15% higher than a standard diploid ryegrass⁵.

Greater Animal Productivity



GREATER
ANIMAL
PRODUCTIVITY

Farmers have seen Aber HSG pasture grazed 'like a mower', the lambs stay clean, the bulls more content and the deer reluctant to walk out for another paddock of conventional ryegrass.

An AgResearch trial showed cows fed Aber HSG produced 10% more autumn milksolids than cows fed a standard ryegrass⁶. Overseas trials have shown 6% more milk per cow and a 20% higher daily liveweight gain for lambs and beef cattle when fed or grazed on Aber HSG⁷.

Why the increase in production?

- Aber HSG's improved digestibility increases the supply of readily available energy to assist in building more microbial protein in the rumen
- Aber HSG's enhanced palatability encourages increased intake of dry matter

Scientists calculate a digestibility gain of 1% enables a dairy cow to produce an extra 0.28 litres per day, a beef animal to produce an extra 40 grams of meat per day and a lamb to gain an extra 20 grams of meat per day⁴.

AberMagic and AberGreen, being 5.0% and 5.5% respectively higher in digestibility when compared with a standard ryegrass³, offer the potential for dairy cows, beef cattle and lambs to significantly increase milk or meat production.



Enduring Persistence



ENDURING
PERSISTENCE

Pasture persistence is absolutely essential but is the easiest trait to lose when plant breeders strive to improve a plant's forage value.

Aber® HSG plant breeders are well aware of this and make strong and dense root and tiller growth a priority.

A trial near Ashburton conducted by Plant Research (NZ) Ltd, showed AberMagic and AberGreen out performed a popular standard variety for yield in that trial's third and final year when yields commonly start to diminish³.

Aber HSG pastures are reported to persist and perform on farms throughout New Zealand for over ten years, providing good ground cover and quicker recovery after grazing and dry spells.

Environmental Benefits



ENVIRONMENTAL
BENEFITS

Cattle, sheep and deer are poor converters of herbage protein, using only 20% for production with the rest wasted in faeces and urine.

The high level of water soluble carbohydrate (WSC) in Aber HSG grass provides a more readily fermentable energy. Research at IBERS shows this increases the capture of rumen degradable protein into microbial protein and reduces the amount of N lost in urine⁷.

New Zealand research shows rumen ammonia to be significantly lower in cows grazing Aber HSG⁸. The improved use of ruminal protein suggested by this data could provide environmental advantages in reducing nitrogen excretion⁸.

The release of methane gas from sheep and cattle amounts to almost one third of New Zealand's greenhouse gas emissions, and it is the largest contributor. Methane also accounts for over 40% of all emissions in terms of global warming potential.

The extra water soluble sugars in Aber HSG can change rumen fermentation patterns reducing methane emissions. An AgResearch trial showed 9% lower methane emissions from sheep fed AberMagic compared with a conventional diploid variety⁵.

Science performs

Germinal's investment in research continues to provide New Zealand farmers with access to world-leading advances in plant breeding.

Our exclusive partnership with the Institute of Biological, Environmental and Rural Sciences (IBERS) in Wales makes this possible. IBERS is a prestigious research and education centre, recognised internationally for improving forage quality, persistency and yield in perennial ryegrass and clover.

Germinal and IBERS have worked together since the mid-1980s, a collaboration that has led to ground-breaking research and reputable products. For example:

- **AberMagic, AberGreen and AberGain high sugar grasses** – scientifically proven to increase ruminal efficiency and reduce nitrogen output
- **AberLasting** – the world's first successful cross of Caucasian and white clovers
- **AberClaret** – the first of a new generation of red clovers, bred for increased persistence

Recognising the need to breed for New Zealand, in New Zealand, we have also established a research and development station in Christchurch. Using IBERS material, our team is selecting for traits suited to New Zealand's unique environment – such as increasing the early spring growth of perennial ryegrass.

It is the first time that IBERS material has been released for breeding and selection work outside of the university.

The next step in our innovative breeding programme is the development of a new, non-GMO ryegrass with increased lipid (fat) content. Working with IBERS, our aim is to achieve a lipid concentration of five percent – double the amount in current varieties – to make the feed more energy-dense.

Our focus is on bringing science from the lab to the paddock, delivering unique products with measurable benefits for our customers and the environment.



Not all grass is the same

Lift animal production and reduce your carbon footprint with Aber High Sugar Grass

Bred to produce more water-soluble carbohydrates, or sugars, Germinal's award-winning high sugar grasses offer farmers real potential to boost milk and meat production.

The extra water-soluble sugars can change rumen fermentation patterns, allowing animals to absorb more energy from the feed. This means more protein is converted to milk and meat and less is excreted into the environment.

New Zealand data also shows that methane gases are reduced when stock are fed on Aber High Sugar Grass.

Grass that improves the performance of livestock while reducing their carbon footprint offers New Zealand farmers a real win-win; it's a modern solution to today's farming challenges and technology that requires no notable change of system.



AberGreen

AberGreen is a deep rooting ryegrass with very fine and dense tillers, making it a robust plant under all farm types.

AberGreen is the first perennial ryegrass to offer the closest to optimum energy:protein ratio.

Quality of grass is just as important as total yield. A digestibility gain of 1% is worth 3% of yield – animals have a higher voluntary intake with high digestibility, and are able to absorb more energy from the feed, meaning animals fed on good quality grass will yield more. AberGreen is 5.5% higher in digestibility when compared to a standard ryegrass.

- Vigorous ground cover
- Optimum energy-to-protein balance
- Excellent digestibility under grazing and silage management
- Bred for enduring persistence
- Superior late spring yields

Aber Green

Type	Perennial Ryegrass
Ploidy	Diploid
Sowing Rate	18 - 20Kg/ha
Heading Date	Late +17 days
Endophyte Date	Nil and AR1

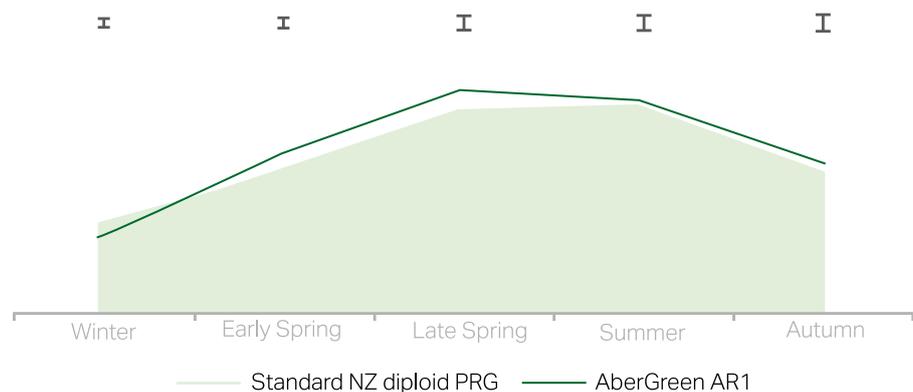
Seasonal growth curve (kg DM/ha) of AberGreen AR1 perennial ryegrass compared with a standard NZ diploid ryegrass*



AberGreen



Standard NZ Ryegrass



The increased tiller density of AberGreen (left) compared with a standard NZ ryegrass (right), provides superior ground cover, meaning less room for weeds, greater tolerance to pugging and more light captured for grass growth.

*Data taken from combined perennial ryegrass trials (partially irrigated) in Canterbury, New Zealand. Error bars show the LSD value when significant differences occurred (P<0.05).

Nutritive Value Data

Table 1.

Water soluble carbohydrate concentration (% DM) of perennial ryegrass cultivars in year one of a Waikato NFVT trial (N215WAI).

Note: this trial included a total of 31 cultivars on which the statistical analysis was conducted, however six non-commercial lines have been removed from this presentation as requested by the NZPBRA.

Entry	Winter		Early Spring		Late Spring		Summer		Autumn		Year	
AberGreen AR1	28.8	ch	31.4	ab	20.7	ab	20.4	a	18.1	a	23.1	a
AberMagic AR1	31.8	a	30.8	ae	21.7	a	18.4	b	16.4	b	22.7	ab
Bealey NEA2	31.6	ab	32.0	a	18.9	bi	16.3	df	16.1	bc	21.9	bc
Jeta AR1	29.3	cf	31.2	ac	20.6	ac	16.6	ce	15.8	bd	21.6	cd
Platform AR37	29.7	ac	29.6	bh	19.9	ad	17.0	cd	14.6	eh	21.1	ce
Viscount NEA4	29.3	cf	30.6	af	19.0	bh	15.2	fk	15.3	be	20.8	df
Base AR37	29.4	ce	30.6	af	19.6	bf	15.3	ek	14.6	ei	20.7	df
Hustle AR1	27.9	ck	30.0	ah	19.2	bg	16.0	dh	15.2	cf	20.7	eg
Trojan NEA2	29.0	cg	29.0	ci	18.7	cj	16.2	dg	14.8	dg	20.5	eh
Stellar AR1	25.9	kn	27.9	hj	18.8	bi	17.8	bc	15.5	be	20.4	eh
Halo AR37	28.4	ci	30.1	ah	18.4	dn	15.5	ej	14.7	eh	20.4	ei
Alto AR37	27.8	ck	30.2	ag	19.8	be	15.5	ej	13.9	gl	20.3	ei
Ansa AR1	29.7	cd	29.2	dh	18.6	dk	15.2	fl	14.2	gj	20.3	fj
24Seven Happe	29.5	be	30.2	ag	16.9	jn	14.5	im	13.5	in	19.8	gl
Prospect AR37	27.6	el	28.5	fj	19.3	bg	15.4	ej	13.5	io	19.8	gl
Expo AR37	26.5	in	28.5	fj	18.5	dl	15.7	di	14.1	fk	19.7	gm
Bronsyn SE	27.0	gm	29.9	ah	18.5	dl	15.0	gm	13.2	jo	19.6	hm
Matrix SE	26.9	hm	29.6	bh	18.7	cj	15.1	fm	12.7	mo	19.5	im
Request AR37	26.1	kn	28.6	ej	18.4	dm	15.2	fm	13.3	jo	19.3	kn
One50 AR37	27.3	fm	29.0	di	16.8	ln	14.9	gm	13.4	jo	19.2	kn
Rely AR37	27.0	gm	28.5	fj	16.6	mn	14.8	hm	13.6	hm	19.1	kn
Excess AR37	26.0	kn	28.3	gj	17.8	fn	14.9	gm	13.1	ko	19.0	ln
Moxie AR1	25.4	mo	27.2	ik	17.2	hn	14.9	gm	13.6	hm	18.8	mo
Bronte Happe	25.6	lo	27.2	ik	17.6	gn	14.0	km	12.5	no	18.3	no
Ultra AR1	23.5	o	25.5	k	16.9	jn	14.7	hm	12.9	lo	17.9	o
F Test	***		***		***		***		***		***	
CV%	5.4		5.4		7.3		6		5.7		3.4	
LSD 5% level	2.1		2.2		1.9		1.3		1.1		0.9	
Trial Mean (kgDM/ha)	27.7		29.2		18.4		15.6		14.2		20	

Table 2.

Metabolisable energy concentration (MJME/kg DM) of perennial ryegrass cultivars in year one of a Waikato NFVT trial (N215WAI).

Note: this trial included a total of 31 cultivars on which the statistical analysis was conducted, however six non-commercial lines have been removed from this presentation as requested by the NZPBRA.

Entry	Winter		Early Spring		Late Spring		Summer		Autumn		Year	
Bealey NEA2	13.3	a	13.4	a	12.3	bc	12.0	bc	12.5	ac	12.6	a
AberGreen AR1	12.6	bi	13.2	bd	12.3	bc	12.4	a	12.6	ab	12.6	ab
AberMagic AR1	12.4	di	13.1	bf	12.5	a	12.3	a	12.6	a	12.6	ac
Jeta AR1	13.2	ab	13.2	ab	12.3	bc	11.9	ej	12.4	cd	12.5	ad
Halo AR37	12.8	ag	13.2	bd	12.3	bd	11.9	cf	12.4	bd	12.5	bd
Platform AR37	13.0	ad	13.1	bf	12.2	bf	12.0	ce	12.3	fk	12.4	ce
Base AR37	12.9	af	13.2	ab	12.2	bf	11.9	cg	12.3	ei	12.4	ce
Viscount NEA4	12.6	bi	13.1	bf	12.3	b	12.0	ce	12.4	df	12.4	df
Matrix SE	12.7	ag	13.1	be	12.3	bc	11.9	cf	12.2	hl	12.4	dg
Stellar AR1	12.5	bi	12.9	ek	12.1	el	12.1	b	12.4	ce	12.4	dg
Ansa AR1	12.7	bh	13.0	ci	12.2	di	11.8	fj	12.3	fi	12.3	eh
Alto AR37	12.7	ag	13.1	bg	12.1	el	11.8	fk	12.2	in	12.3	ei
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24Seven Happe	12.5	ci	13.1	bh	12.1	dj	11.8	hm	12.2	in	12.3	hl
Prospect AR37	12.5	bi	13.0	ek	12.2	ch	11.7	lo	12.2	gk	12.3	hm
Expo AR37	12.2	gj	12.9	hl	12.2	bf	11.9	cg	12.2	hm	12.2	hm
Request AR37	12.6	bi	12.9	hl	12.1	el	11.8	gl	12.1	mo	12.2	im
Ultra AR1	12.4	di	12.7	l	12.2	cg	11.8	hm	12.2	ko	12.2	in
One50 AR37	12.7	ag	13.0	dj	11.8	m	11.6	no	12.1	lo	12.2	in
Hustle AR1	12.3	ei	12.8	jl	12.1	fl	11.8	hn	12.2	im	12.2	in
Excess AR37	12.3	di	12.9	hl	12.2	cg	11.7	io	12.1	mo	12.2	jn
Bronte Happe	12.2	gj	12.8	kl	12.1	dk	11.8	fk	12.2	jn	12.2	jn
Rely AR37	12.6	bi	12.9	gl	11.9	m	11.7	ho	12.1	no	12.2	jn
Moxie AR1	12.7	bi	12.8	kl	11.9	m	11.6	o	12.0	op	12.1	mn
Bronsyn SE	12.2	fj	12.8	jl	12.0	km	11.6	mo	11.9	p	12.1	n
F Test	***		***		***		***		***		***	
CV%	3.7		1.1		1		0.9		0.7		0.8	
LSD 5% level	0.6		0.2		0.2		0.1		0.1		0.1	
Trial Mean (kgDM/ha)	12.6		13		12.1		11.9		12.3		12.3	



AberMagic

AberMagic is a deep rooting ryegrass with very dense tillers, making it a robust plant under all farm types.

Its increased ground cover makes it hardy under pugging and the greater root mass seen on farm allows AberMagic to tolerate reduced soil moisture.

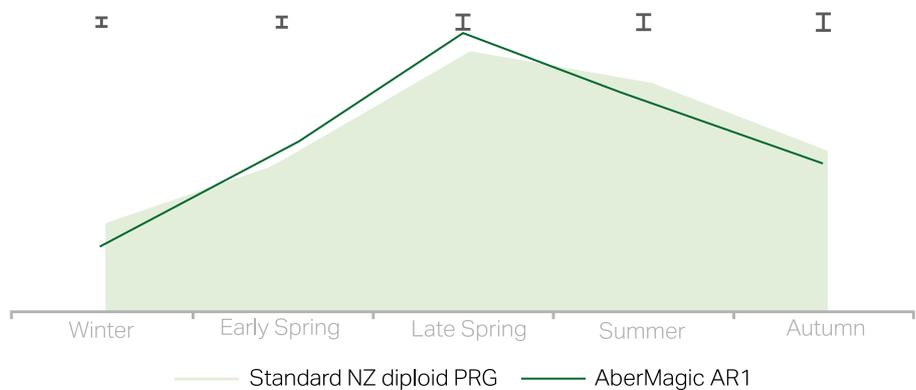
AberMagic is 5.0% higher in digestibility when compared to a standard ryegrass.

- Exceptional quality under grazing and silage management
- Dense tiller growth providing increased ground cover
- Deep roots for enduring persistence
- Superior late spring yields

Aber Magic

Type	Perennial Ryegrass
Ploidy	Diploid
Sowing Rate	18 - 20Kg/ha
Heading Date	Late +19 days
Endophyte Date	Nil and AR1

Seasonal growth curve (kg DM/ha) of AberMagic AR1 perennial ryegrass compared with a standard NZ diploid ryegrass*



Above ground and below ground: AberMagic provides a dense sward, with superior root mass.

*Data taken from combined perennial ryegrass trials (partially irrigated) in Canterbury, New Zealand. Error bars show the LSD value when significant differences occurred ($P < 0.05$).

Pasture persistence and soil fertility

"Production constantly lifts two percent when cows graze high sugar grass."

Minimising the impact of nitrogen and improving feed quality is a key priority for Otago dairy farmer Larry Frost.

Larry and his two sons milk 400 cows on their 200-hectare property in Milton – located 50 kilometres south of Dunedin. The farm also fattens 40 bulls every year and carries calves into the dry season.

Germinal's high sugar grass cultivar, AberMagic, is planted on 30-hectares. It has been used as part of a permanent pasture mix since 2011 to improve soil fertility and production.

Dense, persistent pasture has been the result, with increased grazing times and quick recovery after dry spells.

"We tend to find that we get more grazing out of those paddocks, and they respond the best after the dry season," says Larry, adding that high sugar grass performs better than other cultivars.

"A paddock sown with a mix of AberMagic and AberGreen perennial ryegrasses, and the large leaf white clover AberNormous in early March was grazed twice before winter."

Larry's tough, predominately hill property can present a challenge for maintaining good ground cover. Germinal high sugar grass varieties are planted on the flat, more productive soils to make the most of their deep root mass and ability to withstand grazing pressure, with the pasture improving with age.

"The older a paddock is the better it gets," Larry says. "Production constantly lifts two percent when cows graze high sugar grass."

**Larry Frost, Dairy Farmer,
Otago**



AberGain

AberGain is a high sugar ryegrass, meaning it has been bred to contain a higher level of water-soluble carbohydrates, or sugars, than traditional perennial ryegrass.

Tetraploid perennial ryegrasses provide higher utilisation and increased production per hectare compared with diploid perennial ryegrass, due to increased palatability and greater animal preference. AberGain provides all these benefits, and combined with its densely tillered nature, offers farmers real potential to lift animal production.

- First tetraploid high sugar grass released in New Zealand.
- Densely tillered for improved recovery from severe grazing events and pugging

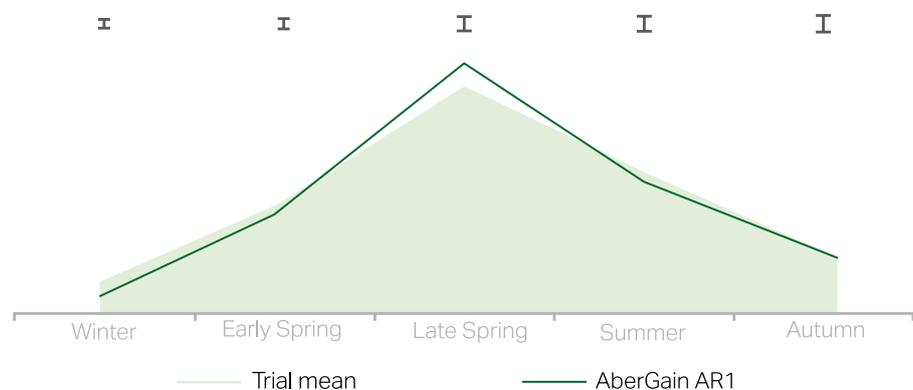
Aber Gain

Type	Perennial Ryegrass
Ploidy	Tetraploid
Sowing Rate	25 - 30Kg/ha
Heading Date	Very Late +24 days
Endophyte Date	Nil and AR1

Seasonal growth curve (kg DM/ha) of AberGain AR1 perennial ryegrass*



Superior tiller density of AberGain (left) is demonstrated compared with a standard NZ tetraploid perennial ryegrass (right), providing improved recovery following grazing and greater tolerance to severe grazing events.



*Data taken from combined perennial ryegrass trials (partially irrigated) in Canterbury, New Zealand. Trial mean includes four commercial tetraploid perennial ryegrass varieties sold in NZ, with AR1 and NEA2 endophytes. Error bars show the LSD value when significant differences occurred ($P < 0.05$).



Pasture still going strong after 15 years

“The majority of our farm is planted in Germinal seed. The stock love it.”

South Otago farmer Scott McKenzie planted his first paddock of Germinal high sugar grass in 2005 – 15 years later the pasture is still going.

“The majority of our farm is planted in Germinal seed. The stock love it,” says Scott, who runs a large sheep, beef and forestry operation near Clinton.

The 800-hectare property is home to three generations of the McKenzie family – Scott and his wife Jo, Scott’s brother Ryan and his wife Jennel, and their parents Colin and Elaine. The family recently celebrated 100 years on the farm.

South Otago is renowned for its environmental extremes and the region often experiences four seasons in one day, says Scott.

“My grandad always told me if the sun is shining take your coat, but if it’s raining please yourself. That about sums it up, as the weather is fast changing and very variable. Therefore any pasture we plant needs to handle both the wet and dry.”

Nearly 600 hectares of the McKenzie’s property is planted in Germinal’s high sugar grasses and clovers. The remaining land is largely unproductive hill country and used for forestry.

Scott is using the company’s AberMagic and AberGain high sugar grasses as part of a permanent pasture mix, alongside white clover varieties AberDance and AberNormous.

Dense, persistent pasture has been the result, and high digestibility has lifted animal production.

“Sheep certainly like the high sugar grass, as they will often eat that over other recognised varieties,” says Scott.

“All of our clovers are from Germinal, and the pasture seems to really hang on in the dry. We had a clover root weevil problem a few years ago, and we were still able to fatten the lambs on Germinal grass.”

The pasture also withstands pugging, adds Scott. “The grass can be black in winter and come away good as gold.”

**Scott McKenzie, Sheep and Beef Farmer,
South Otago**

The Aber logo consists of a stylized green leaf icon to the left of the word "Aber" in a white, sans-serif font.

Clover Range

High yields, quality and persistency

Clover – the unsung hero

Agricultural sustainability has become a mainstream priority. Within this landscape, it is inevitable that farmers will need to reduce their nitrogen applications. Clover, a natural nitrogen-fixer, presents a practical and cost-effective solution that can help reduce environmental impact while maintaining productivity.

Our clovers are bred for greater tolerance to environmental stressors, such as low temperatures or drought conditions. AberLasting, New Zealand's first successful cross of Caucasian and white clovers, can withstand overnight temperatures of -20 degrees Celsius – which would wipe out 70 percent of other white clover varieties.

Geminal's international red clover breeding programme has led to new varieties with greater persistency and grazing tolerance.

The first generation of these new red clovers is AberClaret, which is now available in New Zealand.



AberClaret

Red clover

Red clover can either be grown as part of a grass/clover sward, or as a monoculture, primarily to provide high yields of protein-rich forage. The development of more grazing tolerant and persistent varieties is creating the potential for red clover in rotational grazing systems, and it also has value as a break crop that improves soil structure and fertility.

- Sowing rate 4-6 kg/ha (in pasture mix) / 12-14 kg (pure sward)
- Suitable for a range of systems, yields well under grazing and conservation
- Semi-upright growth habit

As the crown is above ground, damage must be avoided to ensure plant survival.



A strip of AberClaret red clover in a dryland sheep pasture in Canterbury



AberLasting

Caucasian White Clover X

The first super clover is here

AberLasting is the first ever super clover, developed to incorporate the benefits of Caucasian clover with white clover, giving farmers the best of both.

- Stoloniferous (surface and underground runners) and rhizomatous (larger and deeper underground stem) root system
- Increased persistence from rhizomatous root system
- Faster establishment than Caucasian clover
- More drought tolerant than white clover – maintained leaf water content for one week longer than white clover when without water⁹
- Excellent cold tolerance
- Can withstand heavy grazing and recovers quicker than white clover.
- Nitrogen fixation comparable with white clover
- Aber production paddocks have seen tolerance to Clover Root Weevil over second and third years under pressure



Omarama demonstration site in Otago: six month old AberLasting (above) planted in October 2015 into an unfertile, dry and bony site. The plant is expressing itself similar to a Caucasian clover below ground, with new plants growing off the parent plant rhizomes. These new plants are then establishing tap roots measured down to at least 200 mm.



Balancing the extremes

"The pasture has to survive and bounce back in our tough location"

Hamish and Julia MacKenzie of Braemar Station have used Germinal's AberLasting white clover as part of their permanent pasture mix since 2013. The aim is to increase feed quality and persistency for the farm's 7,000 sheep, 1,500 deer and 450 cattle.

Situated 700 metres above sea level on the eastern side of Lake Pukaki, Braemar Station covers 4,100 hectares. Temperatures can drop to -15 degrees Celsius in the winter, and it is not uncommon to be feeding out for 120 days during this time. Long dry periods in summer culminate in frequent droughts.

Touted as the first 'super clover', AberLasting is New Zealand's first successful cross of Caucasian and white clovers. Bred for greater tolerance to environmental stressors, it can withstand overnight temperatures of -20 degrees Celsius, which would wipe out 70 percent of other white clover varieties.

In a drought tolerance experiment AberLasting maintained leaf water content for one week longer than traditional white clover varieties when completely without water.

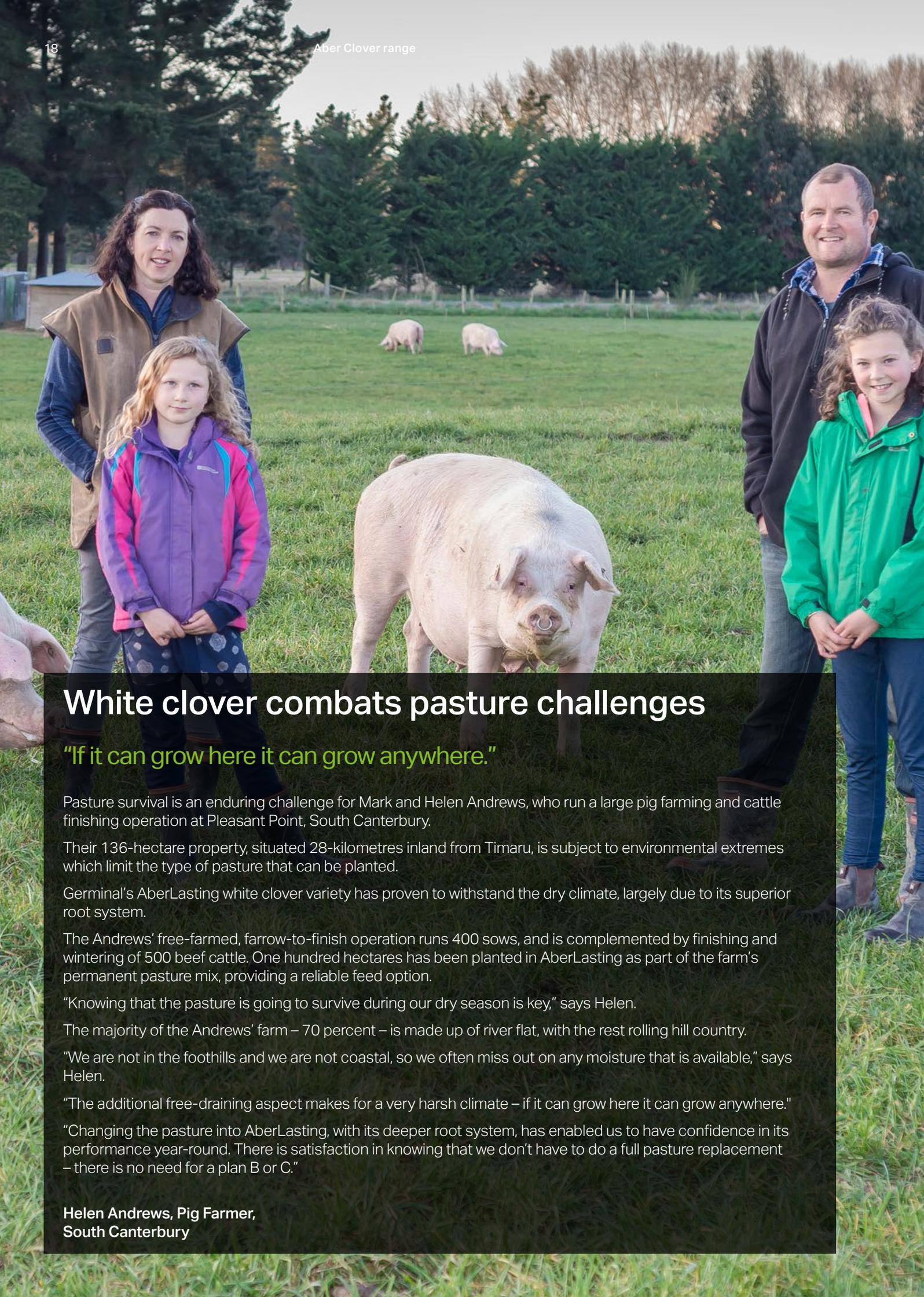
Pasture persistence has significantly improved since using AberLasting, says Hamish.

"A lot of other clover would have run out of puff by now, but the AberLasting mix is still going strong after four years.

"The pasture has to survive and bounce back in our tough location. We are fattening lambs, deer and growing out young stock, so persistence is particularly important."

The superior root system of AberLasting clover results in a more resilient plant, which also enables it to withstand heavy grazing.

**Hamish MacKenzie, Sheep, Beef and Deer Farmer,
Lake Pukaki**



White clover combats pasture challenges

"If it can grow here it can grow anywhere."

Pasture survival is an enduring challenge for Mark and Helen Andrews, who run a large pig farming and cattle finishing operation at Pleasant Point, South Canterbury.

Their 136-hectare property, situated 28-kilometres inland from Timaru, is subject to environmental extremes which limit the type of pasture that can be planted.

Geminal's AberLasting white clover variety has proven to withstand the dry climate, largely due to its superior root system.

The Andrews' free-farmed, farrow-to-finish operation runs 400 sows, and is complemented by finishing and wintering of 500 beef cattle. One hundred hectares has been planted in AberLasting as part of the farm's permanent pasture mix, providing a reliable feed option.

"Knowing that the pasture is going to survive during our dry season is key," says Helen.

The majority of the Andrews' farm – 70 percent – is made up of river flat, with the rest rolling hill country.

"We are not in the foothills and we are not coastal, so we often miss out on any moisture that is available," says Helen.

"The additional free-draining aspect makes for a very harsh climate – if it can grow here it can grow anywhere."

"Changing the pasture into AberLasting, with its deeper root system, has enabled us to have confidence in its performance year-round. There is satisfaction in knowing that we don't have to do a full pasture replacement – there is no need for a plan B or C."

**Helen Andrews, Pig Farmer,
South Canterbury**



AberDance

Medium leaf

AberDance is bred from winter hardy material to provide flexibility in response to various grazing managements. It offers high yields and shows good survival in systems ranging from continuous sheep grazing through to rotational sheep and cattle grazing.

- Flexible - suitable for hard grazing and cutting.
- High-yielding and persistent in a range of grazing systems.
- Showed excellent persistence over eight years in a UK trial¹⁰.

AberNormous

Large leaf

A new generation, high yielding white clover. AberNormous has dense stolon growth for greater persistency and offers the versatility of being suitable for rotational dairy and cattle grazing, and high production silage pastures.

- Flexible - suitable for hard grazing and cutting
- Versatile - suitable for rotational grazing and cutting
- Retains high digestibility throughout the season
- Bred for greater persistency and forms dense stolon growth
- Good stress and grazing tolerance; pest and disease resistant
- Produces an ideal clover balance for dairy and cattle systems when mixed with AberDance

Notes

Find out more

Should you require any more information or to request a selection of free brochures and technical guides please visit our website:

germinal.co.nz



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