



CROPMARKSEEDS
Driving Productivity™

Cultivar Portfolio

www.cropmarkseeds.com

Freephone: 0800 427 676



Your New Zealand owned grass and forage crop breeding and supply company.

Cropmark Seeds Ltd is a New Zealand owned forage plant breeding and supply company.

Managed by experienced, capable and dedicated staff, and based in the heart of the productive Canterbury plains, the centre of New Zealand's arable industry, the company breeds and supplies a range of grasses, clovers, brassicas and forage herbs to New Zealand farmers.

The company's focus is on developing high performance forage varieties that offer farmers very real performance advantages, through improving their livestock performance, farming systems and bottom-line results.

Based at Darfield in Canterbury, Cropmark's plant breeding programme is a highly innovative and professional breeding programme.

Cropmark's unique varieties are bred with the emphasis on delivering improved yield, higher nutritional values and disease resistance, coupled with the ability to provide more quality forage when most needed.

Varieties developed by the company are thoroughly trialed and tested on farms to assess their performance capability under varying real-farming conditions prior to their commercialisation, evaluating factors such as yield, forage quality and disease resistance and persistence. Only the very highest performing varieties are commercialised providing they perform to stringent selection standards in line with the company's 'driving productivity' philosophy.

As our record to date shows, we have consistently developed forage varieties that have established the benchmark for performance in the pasture industry.

Cropmark Seeds - your New Zealand owned forage plant breeding and supply company.

Thank you for your support.

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Cropmark
Avatar
 Tetraploid Perennial Ryegrass



Tetraploid quality, exceptional performance

DESCRIPTION

Avatar NEA is a very high yielding, very late heading tetraploid perennial ryegrass containing the NEA endophyte. It has been bred for a combination of improved animal safety and persistence against insect pests, and has strong year-round growth performance. It is well suited for high performance systems for delivering high livestock productivity.

BENEFITS

- ▶ An outstanding tetraploid perennial ryegrass containing the NEA endophyte
- ▶ Very high dry matter production
- ▶ High metabolisable energy and digestibility
- ▶ Excellent palatability
- ▶ Very late heading to maintain pasture quality for longer into spring
- ▶ Low aftermath heading - returns to vegetative state quickly
- ▶ Very good persistence
- ▶ Ideal for sheep and cattle

PERFORMANCE

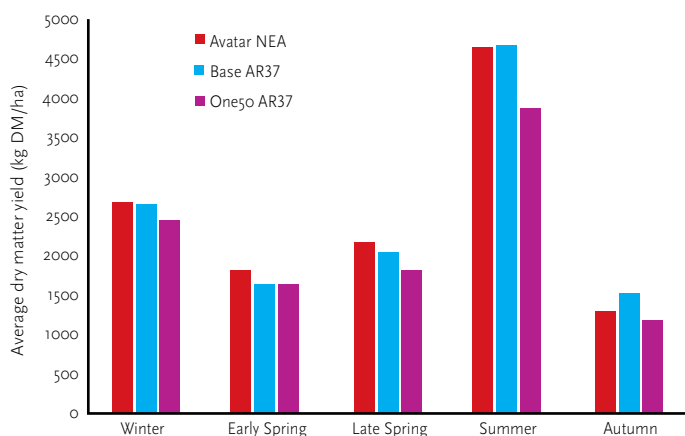
Avatar NEA is displaying outstanding yield performance in all trials it has been entered into around NZ.

AGRONOMIC TRAITS

PLOIDY	Tetraploid
HEADING DATE	Very late
PERSISTENCE (years) *	5+
RUST RESISTANCE **	8
WINTER ACTIVITY	High
SOWING RATE (kg/ha)	25-30

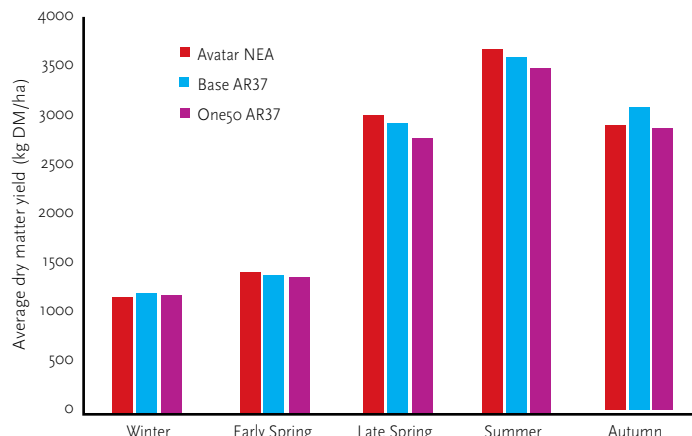
* Subject to management and climatic conditions
 ** 1 = Susceptible 9 = Resistant

AVERAGE SEASONAL DM YIELD OVER 3 YEARS IN WAIKATO



Notes: Cropmark Seeds Waikato yield evaluation trial under non-irrigated management at Ngatea. The replicated plot trial was sown in Autumn 2017. Statistical analysis was performed using 18 varieties.

AVERAGE SEASONAL DM YIELD OVER 3 YEARS IN CANTERBURY



Notes: Cropmark Seeds Canterbury yield evaluation trial under centre pivot irrigation at Hororata. The replicated plot trial was sown in Autumn 2017. Statistical analysis was performed using 18 varieties.

Cropmark
Raider NEA2
 Perennial Ryegrass

The persistent perennial ryegrass

DESCRIPTION

A persistent and high yielding diploid perennial ryegrass. Contains the NEA2 endophyte for good insect pest control, including black beetle, Argentine stem weevil and pasture mealybug. It is late heading, has low aftermath heading, is persistent and dependable.

WHERE IT FITS:

Raider NEA2 is well suited for farmers wanting both high performance and strong persistence under trying farming conditions. It is suited for sowing throughout the country in areas that have pressure from insect pests such as black beetle, Argentine stem weevil and pasture mealybug. Suitable for use with cattle and sheep.

BENEFITS

- ▶ High yielding across all seasons; including strong cool season growth
- ▶ Very strong persistence relative to competitor varieties in industry trials
- ▶ Bred for improved animal safety
- ▶ Can be used anywhere throughout New Zealand
- ▶ Excellent disease resistance
- ▶ Available with NEA2 or without endophyte

AGRONOMIC TRAITS

PLOIDY	Diploid
HEADING DATE	Late
PERSISTENCE (years) *	5+
SOWING RATE (kg/ha)	18-20
SOWING DEPTH (cms)	1-2
SOWING DATES	Autumn & Spring

* Subject to management and climatic conditions

CROPMARK SEEDS PERENNIAL RYEGRASS YIELD EVALUATION TRIAL, BURNHAM (SOWN 2018) (HUNDREDIZED YIELD RESULTS COMPARED TO MEAN)

Variety	Autumn	Winter	Early Spring	Late Spring	Summer
Raider NEA2	107	102	107	106	100
Trojan NEA2	99	101	104	105	106
One50 AR37	93	93	96	100	98
Mean (%)	100	100	100	100	100
Mean (kg/ha)	2,188	836	2,231	3,192	4,359
LSD (5%)	193	99	193	262	471
CV (%)	6	8	6	6	8

Note: Breeding lines omitted from trial results

Cropmark
Ultra
Enhanced® Ryegrass



Superior yield performance

DESCRIPTION

Ultra Enhanced® perennial ryegrass is a fine leaved, very densely tillered, late heading diploid Enhanced® ryegrass. **Ultra combines the best traits of its parents - the high levels of pasture production from perennial ryegrass, coupled with the feed quality attributes of meadow fescue.**

WHERE IT FITS

Containing the AR1 endophyte or low endophyte, Ultra is safer for livestock and can be used with all livestock types.

AR1: Suitable for use as a high performing permanent pasture under rotational grazing or set stocking in high rainfall, irrigated and dryland systems, particularly where Argentine stem weevil is a major pasture pest.

LOW ENDOPHYTE: Suitable to use in cooler, wetter regions where insect pressure is minimal.

BENEFITS

- ▶ Consistently high yielding across seasons, years and regions
- ▶ Produces high winter and early spring feed
- ▶ Later heading to maintain pasture quality longer into spring
- ▶ Strong disease tolerance leading to improved palatability and growth potential
- ▶ Animal safe (AR1 endophyte won't cause grass staggers or heat stress)

AGRONOMIC TRAITS

PLOIDY	Diploid
HEADING DATE	Late
PERSISTENCE (years) *	5+
RUST RESISTANCE **	9
WINTER ACTIVITY	High
SOWING RATE (kg/ha)	18-20

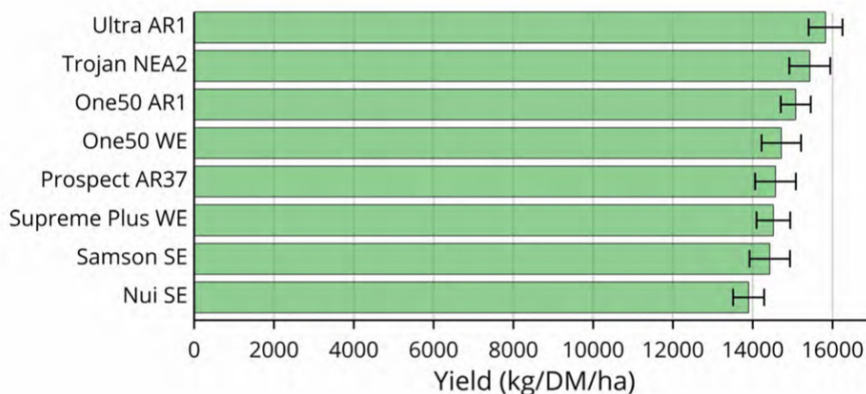
* Subject to management and climatic conditions
** 1 = Susceptible 9 = Resistant

NFVT® 2022 SUMMARY



Perennial Ryegrass
Lower South Island | Total Yield

365 Days



Cropmark
Matrix[®]
 Enhanced[®] Ryegrass



The benchmark for performance and persistence

DESCRIPTION

Matrix is a thoroughly proven, high performing and uniquely different Enhanced[®] perennial ryegrass variety with perennial ryegrass and meadow fescue parentage. It produces high metabolisable energy and highly digestible feed with very high year-round yields, strong winter / early spring activity, and is late heading.

WHERE IT FITS:

Matrix is suited to areas where insect pest pressure is high and in situations where added persistence of ryegrass is needed. Can be used as a straight sward or for undersowing into existing run-out pasture to reinvigorate it.

BENEFITS

- ▶ Thoroughly proven and reliable
- ▶ Strong year-round yield performance
- ▶ Excellent persistence
- ▶ Fast recovery after droughts
- ▶ Available with standard endophyte (SE) or without endophyte

AGRONOMIC TRAITS

PLOIDY	Diploid
HEADING DATE	Late
PERSISTENCE (years) *	5+
RUST RESISTANCE **	8
WINTER ACTIVITY	High
SOWING RATE (kg/ha)	18-20

* Subject to management and climatic conditions
 ** 1 = Susceptible 9 = Resistant



Argentine Stem Weevil



Black Beetle adults



MATRIX SE IS TOLERANT OF ARGENTINE STEM WEEVIL AND BLACK BEETLE

MATRIX IS GREAT VALUE FOR MONEY.... For a reliable, high producing and high quality, palatable pasture which persists well, insist on Matrix.

AND GAIN SAVINGS ON SEED OF UP TO \$100 PER HECTARE COMPARED TO SOME NEW NOVEL ENDOPHYTE VARIETIES.

Whether it is for full renovation or for under-sowing to extend the life of run-out pastures, Matrix is the smart choice.

New

Cropmark
Frenzy
Hybrid Ryegrass



The over-sowing specialist

DESCRIPTION

Frenzy is a new, very high yielding tetraploid hybrid (short rotation) ryegrass containing the NEA endophyte. Frenzy is extremely fast establishing with strong cool season growth and year-round yields. Its very fast establishment makes it ideally suited for stitching into old or run-out pastures or for use as a short term (2-3 years) specialist pastures.

BENEFITS

- ▶ Frenzy is the only 5 star ranked variety in the DairyNZ Forage Value Index for 12-Month feed
- ▶ An outstanding 2-3 year short rotation ryegrass
- ▶ Unrivalled speed of establishment compared to other cultivars trialed
- ▶ Improved year-round yields with very strong autumn-winter growth
- ▶ Very good persistence and palatability
- ▶ Excellent livestock performance potential
- ▶ Available with NEA or LE

AGRONOMIC TRAITS

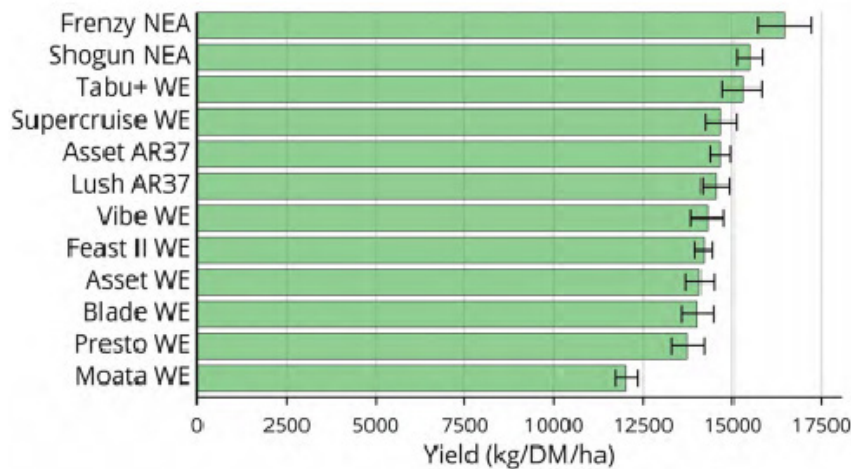
PLOIDY	Tetraploid
HEADING DATE	Late
PERSISTENCE (years) *	2-3+
RUST RESISTANCE **	9
SOWING RATE (kg/ha)	PURE SWARD: 25-30 OVER-SOWING: 10-15

* Subject to management and climatic conditions
** 1= Susceptible 9 = Resistant

NFVT® 2022 SUMMARY



Italian Ryegrass
All New Zealand | Total Yield





Frenzy - the NEW game changing hybrid ryegrass



12 Month – Ryegrass Forage Value List

Evaluation date: 05/01/2022



Cultivars are sorted by star rating and then alphabetically. Note:

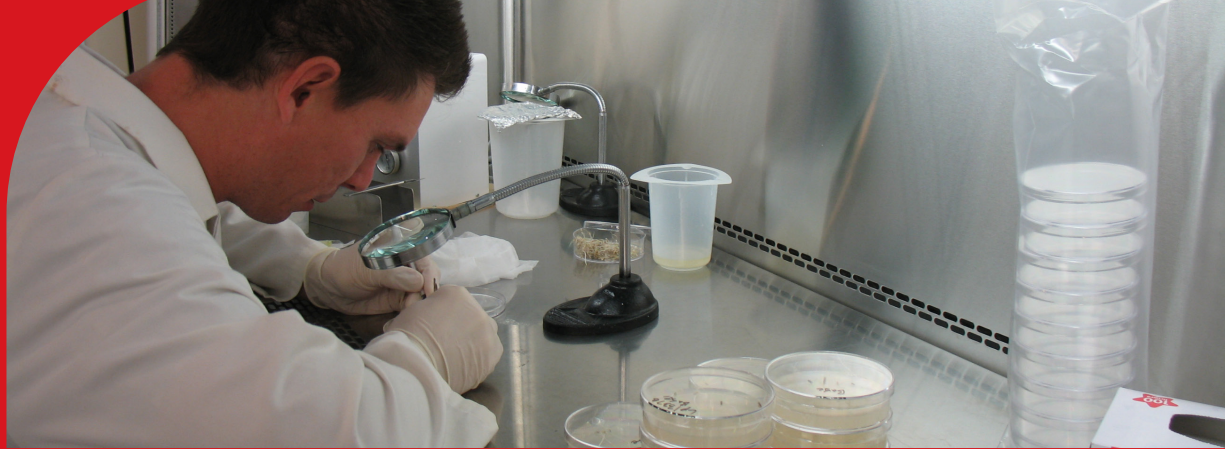
- The short term ryegrasses are sown by dairy farmers for 12 month production.
- The FVI for 12 month ryegrasses is a combination of seasonal dry matter performance and economic values only.
- WE is without endophyte or also referred to as nil endophyte.
- 12 month options include Hybrid and Italian ryegrasses.

STAR RATING	Cultivar	Confidence	Performance Values (1-5 rating)						Other cultivar information			
			Est.	Winter	Early Spring	Late Spring	Summer	Endo	Ploidy	Heading Date	Cultivar Type	Marketer
★★★★★	Frenzy NEA	3.2	5	3	5	5	5	NEA	Tetraploid	Late	Hybrid	Cropmark Seeds
★★★★★	Shogun NEA	10+	2	3	5	5	4	NEA	Tetraploid	Very Late	Hybrid	Barenbrug
	Tabu+ WE	4	4	5	5	3	2	WE	Diploid	Late	Italian	Barenbrug
★★★	Asset AR37	10+	3	3	1	2	3	AR37	Diploid	Late	Italian	Agricom
	Blade WE	7.7	4	3	4	2	2	WE	Diploid	Very Late	Italian	Cropmark Seeds
	Feast II WE	10+	3	2	2	2	3	WE	Tetraploid	Late	Italian	PGG Wrightson Seeds
	Lush AR37	9.9	4	3	3	1	3	AR37	Tetraploid	Late	Italian	PGG Wrightson Seeds
	Supercruise WE	8.3	4	4	1	3	2	WE	Diploid	Late	Italian	PGG Wrightson Seeds
	Vibe WE	7.3	3	3	2	2	2	WE	Diploid	Very Late	Italian	Cropmark Seeds
★★	Asset WE	10+	2	1	1	3	3	WE	Diploid	Late	Italian	Agricom
	Presto WE	7.7	2	2	3	2	2	WE	Diploid	Late	Italian	Cropmark Seeds
	Sonik WE	7	3	2	2	2	2	WE	Diploid	Late	Italian	Cropmark Seeds
★	Moata WE	10+	1	1	1	1	1	WE	Tetraploid	Late	Italian	Common

STAR RATING: 5 = Top rank - 1 = Bottom rank; **Confidence:** Number of DM trials in the regions weighted by the DM trait correlations; **Est.:** Establishment dry matter production (Mar-May); **Winter:** Winter dry matter production (June-July); **Early spring:** Early spring dry matter production (Aug-Sept); **Late spring:** Late spring dry matter production (Oct-Nov); **Summer:** Summer dry matter production (Dec-Feb); **Endo:** Endophyte – WE is without endophyte; For more information visit www.dairynz.co.nz/fvi

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Understanding endophytes

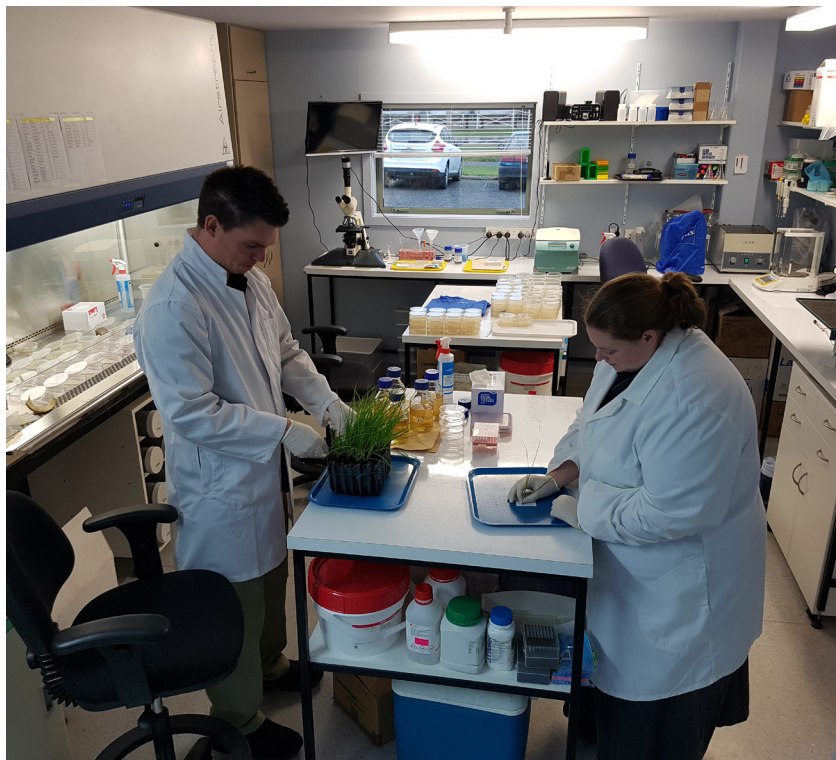


► An endophyte is a fungus that exists within ryegrass and some other grasses, providing the plants with protection against insect pest attack, and therefore improved pasture persistence potential.

► Endophytes are mainly found within perennial and hybrid ryegrasses, but can exist in Italian ryegrass also. While they can provide protection against insect pests, some endophytes can also cause varying impacts on livestock production and performance, including causing grass staggers and heat stress.

► In choosing an endophyte for your situation, you will need to take into account such factors as the types of insects present, the level of insect predation present, its impact on pasture persistence and the type of livestock being farmed.

► There are various forms of endophyte available, including the naturally occurring and very persistent 'standard endophyte', as well as others such as AR1 and NEA2.



ENDOPHYTE STRAIN	STOCK SUITABILITY	TOLERANT AGAINST:				POTENTIAL FOR:		ALKALOIDS:				
		Argentine Stem Weevil	Grass Grub	Black Beetle larvae	Black Beetle adults	Grass staggers	Heat stress		Lolitrems B	Ergovaline	Epoxy Janthirems	Lolines
AR1	Sheep, Cattle and Deer	✓	✗	✗	✗	✗	✗	High	-	-	-	-
NEA/NEA2	Sheep and Cattle	✓	✗	✗	✓	✗	(✓)	Low	Very low	Medium	-	-
U2	Sheep, Cattle and Deer	✓	✓	✓	✓	✗	✗	-	-	-	-	NFL, NAL, NANL
LE	Sheep, Cattle and Deer	✗	✗	✗	✗	✗	✗	Low	Low	Low	-	-
SE	Sheep and Cattle	✓	✗	✗	✓	✓	✓	High	High	High	-	-

- = None produced, NAL = (N-acetyl loline), NANL = (N-acetylnorloline), NFL = (N-formyl loline)

Cropmark Seeds Italian ryegrass plant breeding programme



► Our Italian ryegrasses, Appeal and Vibe were developed from a specialist plant breeding programme to develop more persistent Italian ryegrasses, while retaining highest yield performance and forage quality.

► The programme started 20 years ago by sowing out a range of Italian ryegrass cultivars into a very dry North Canterbury dryland property near Sheffield. The plant breeding selection nursery was sown into the middle of a paddock of Moata.

► The farmer was asked to punish the paddock with harsh grazings using sheep.

After the summer, the surviving plants were retrieved – in the first year only very few plants survived. Those surviving plants were then further ‘crossed’ before re-entering the next year’s phase of the breeding programme.

Each year this selection process continued, applying stringent selection pressure based on persistence, and over time the persistence of varieties developed from the programme improved.

► Today varieties which have been developed from within this breeding selection programme (such as Appeal and Vibe) are showing very strong persistence compared to traditional Italian ryegrasses – even under moderate insect pressure.



Cropmark
Appeal
 Italian Ryegrass



The high yielding, late heading Italian ryegrass

DESCRIPTION

Appeal is a very persistent and very high yielding diploid Italian ryegrass. It has been developed from a 'persistence pool' of Cropmark's Italian ryegrass breeding programme.

Appeal has shown consistently high yield performance in trials around New Zealand, with fast establishment, high winter-early spring production, and an ability to hold on well over the summer, even under moderate insect pressure.

Appeal is nearly two weeks later heading than traditional Italian ryegrasses, enabling it to maintain forage quality for longer into summer. With low aftermath heading, it returns quickly to vegetative state, enabling higher livestock performance potential.

BENEFITS

- ▶ Very persistent, even under harsh management conditions
- ▶ Bounces back from hard grazings well
- ▶ Consistently high yield performance
- ▶ Safer to animals - won't cause grass staggers or heat stress
- ▶ Late heading for carrying pasture quality longer into spring
- ▶ Very palatable
- ▶ Ideal for use as a short term, high quality feed, or for over-sowing into damaged or run-out pastures to extend their life
- ▶ Can be spring or autumn sown and is suitable for all livestock types

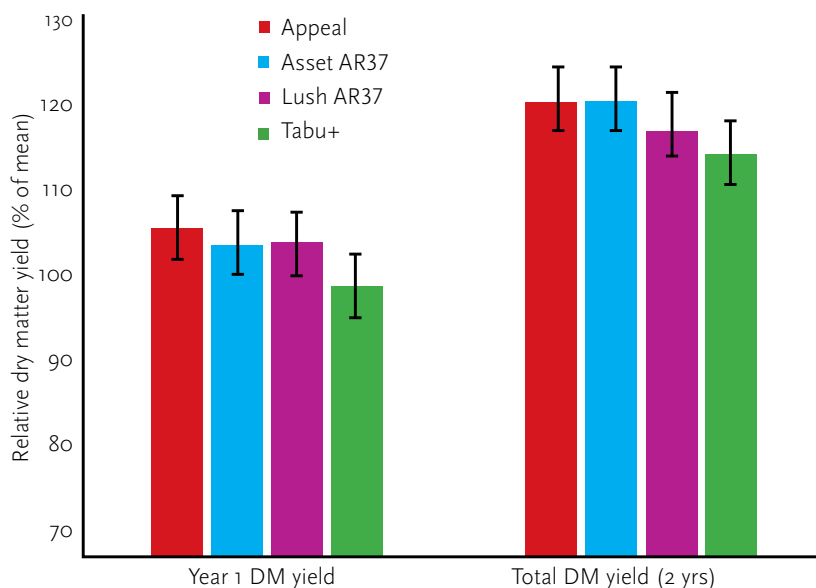
AGRONOMIC TRAITS

PERSISTENCE (months) *	18-30
HEADING DATE	Late
SOWING RATE (kg/ha)	20-25
RUST RESISTANCE **	9
AFTERMATH HEADING	Low
MIN RAINFALL (mls)	450+

* Subject to management and climatic conditions

** 1= Susceptible 9 = Resistant

PERSISTENCE OF DM YIELD OVER 1 AND 2 YEARS AT BURNHAM



Cropmark
Vibe
 Italian Ryegrass



The persistent Italian ryegrass

DESCRIPTION

Vibe is a persistent and high yielding diploid Italian ryegrass, having been developed as part of a 20 year plant breeding programme focused on developing more persistent Italian ryegrasses. Vibe handles hard grazings very well and hangs in there when most other Italians without endophyte won't.

WHERE IT FITS

Ideal for use as a short term, high quality feed, or for over-sowing into damaged or run-out pastures to extend their life.

BENEFITS

- ▶ Very persistent, even under harsh management conditions for a non-endophyte containing grass
- ▶ Safer to animals - won't cause grass staggers or heat stress
- ▶ Late heading for carrying pasture quality longer into spring
- ▶ Very low aftermath heading (returns to vegetative state quickly after heading)

AGRONOMIC TRAITS

PERSISTENCE (months) *	18-30
HEADING DATE	Late
SOWING RATE (kg/ha)	20-25
RUST RESISTANCE **	9
AFTERMATH HEADING	Low
MIN RAINFALL (mls)	450+

* Subject to management and climatic conditions
 ** 1= Susceptible 9 = Resistant

The superior persistence of Vibe (green plot on right) relative to other varieties – Waikato trial site, 2015



HIGHER YIELDS, BETTER PERSISTENCE



Increasing farm profitability through increased home-grown forage production

The profitability of New Zealand animal grazing systems, be it dairy, sheep, beef or deer is closely related to the production and consumption of home-grown forage. Because all productive pastures deteriorate over time, there is a need to renew pasture on a regular basis to enable stock to produce to their maximum capacity. The benefits of re-grassing include the opportunity to produce significantly more feed, control seasonal production, and increase the quality of the feed, which leads to greater animal production.

Typically successful pasture renewal will increase dry matter per hectare per year production by around 3–6 tonnes [each year]. New pastures consistently produce an average of 0.5 more megajoules of ME/kg DM over old pastures.



The base forage for most animal production systems is perennial ryegrass due to its ability to provide a seasonal spread in production for most New Zealand grazing systems.

However perennial ryegrass still has its limitations, including its inability to provide adequate feed all year round particularly reduced winter and summer production.

These limitations reduce the ability of New Zealand farming systems to fulfill their production potential. A proven approach to improving forage production and therefore to increase farm profitability is to adopt a 'Strategic Pasture Renovation™' system which integrates other forage species into a farm's system.



The Strategic Pasture Renovation™ system has the ability to increase total annual dry matter production, by strategically incorporating other forage options that produce larger quantities of quality feed when perennial ryegrass can not.

The more feed that is grown and consumed on farm, the more profitable the farm will be.

The Strategic Pasture Renovation™ process increases the total amount of feed grown on farm through establishing high yielding and high quality crops that complement the perennial pasture on farm.





How much more feed can I grow through a Strategic Pasture Renovation™ system?

STRATEGIC PASTURE RENOVATION SYSTEM EXAMPLE			
Zoom annual ryegrass ▶ Marco Turnip or Chico Chicory ▶ Avatar NEA perennial ryegrass			
EXISTING/OLD PASTURE		STRATEGIC PASTURE RENOVATION SYSTEM	
YEAR 1			
Forage production from existing ryegrass/clover pasture per year	11,000 kgDM/ha	Forage production from Zoom™ annual ryegrass crop – March - Oct	8,000 kgDM/ha
Average Metabolisable Energy (ME) content/kgDM	11.0 MJ	Average Metabolisable Energy (ME) content/kgDM	12.0 MJ
		Forage production from Marco / Chico crop – November - March	11,000 kgDM/ha
		Average Metabolisable Energy (ME) content/kgDM	12.5 MJ
Total forage grown per year	11,000 kgDM/ha	Total forage grown in first year of SPR process	19,000 kgDM/ha
Total MJ ME produced per ha	121,000 MJME/ha	Total MJ ME produced per ha in first year of SPR process	233,500 MJME/ha
YEAR 2			
Total forage grown per year	11,000 kgDM/ha	Forage production from new Avatar NEA perennial ryegrass	14,000 kgDM/ha
Average Metabolisable Energy (ME) content/kgDM	11.0 MJ	Average Metabolisable Energy (ME) content/kgDM	11.5 MJ
Total MJ ME produced per ha	121,000 MJME/ha	Total MJ ME produced per ha in second year of SPR process	161,000 MJME/ha
* indicative yields and quality only			

New

Cropmark
Rampage
Annual Ryegrass

The NEW 5 star annual ryegrass for winter feed

DESCRIPTION

Rampage is Cropmark's newest tetraploid annual ryegrass. It is the highest yielding annual ryegrass in the National Forage Variety Trials® with exceptional yield across all seasons.

Rampage has extremely fast establishment, with strong winter, early spring production, rapid re-growth after grazing and an ability to maintain high productivity and persistence into summer.

Rampage is late heading with low aftermath heading, strong disease resistance, high forage quality and has very good animal palatability. It is an ideal winter feed and break crop after maize and is suitable for all livestock types.

AGRONOMIC TRAITS

PLOIDY	Tetraploid
HEADING DATE	Late
PERSISTENCE (months) *	8-10
WINTER ACTIVITY	Very high
RUST RESISTANCE **	9
SOWING RATE (kg/ha)	25-30

* Subject to management and climatic conditions

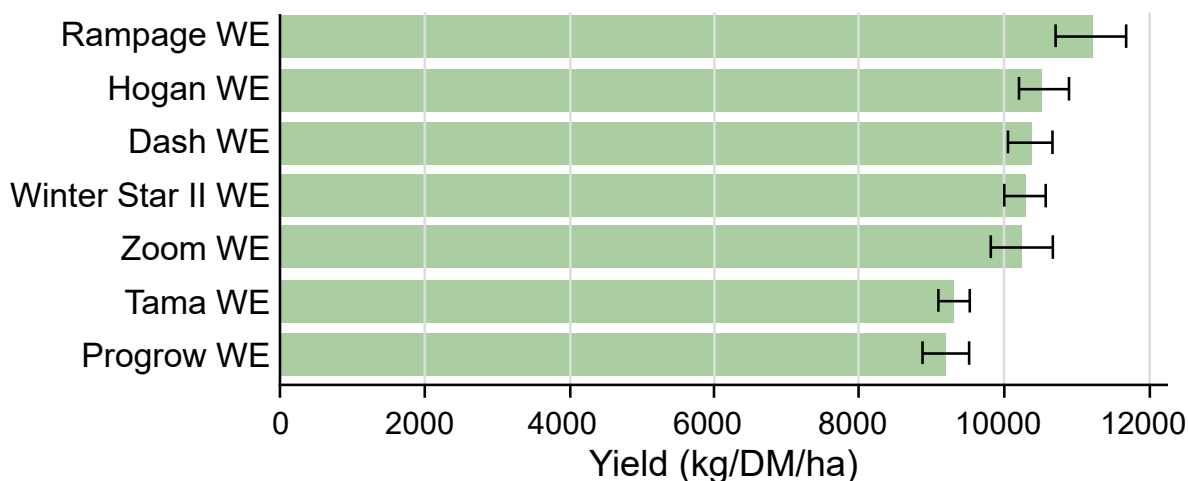
** 1= Susceptible 9 = Resistant

NFVT® 2022 SUMMARY



Annual Ryegrass All New Zealand | Total Yield

365
Days



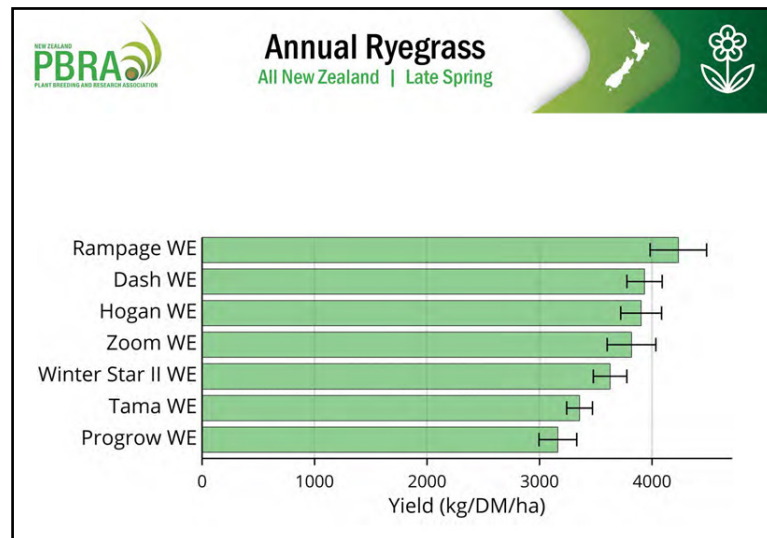
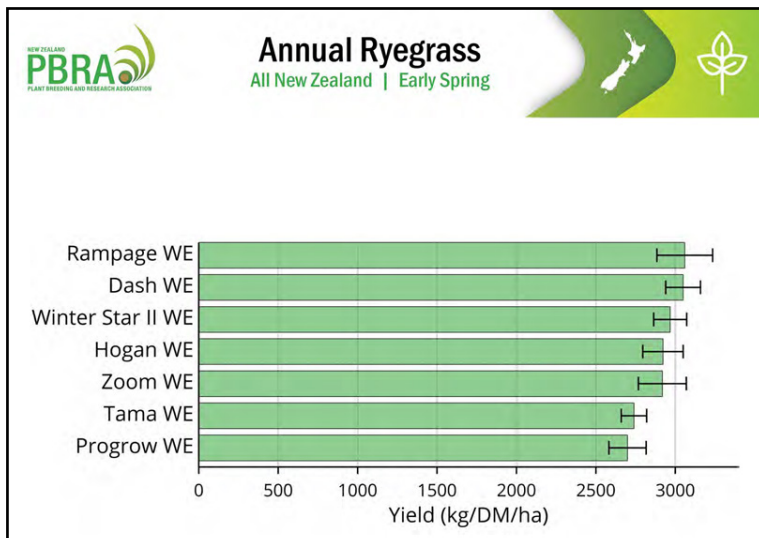
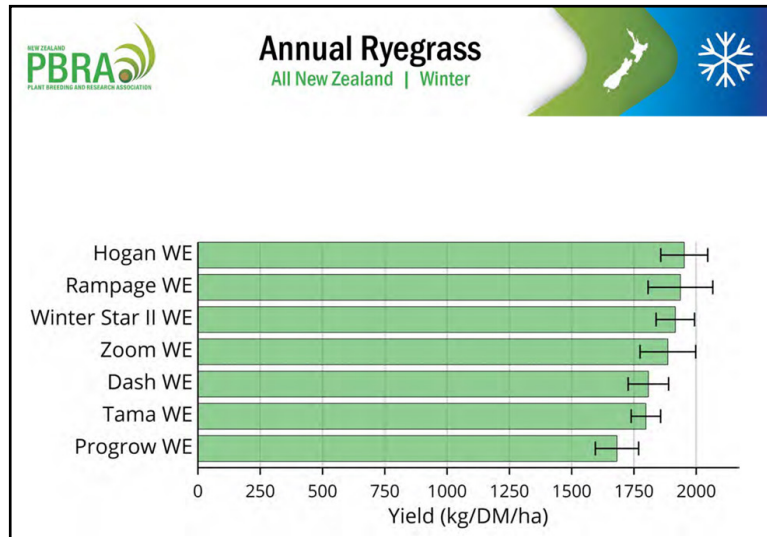
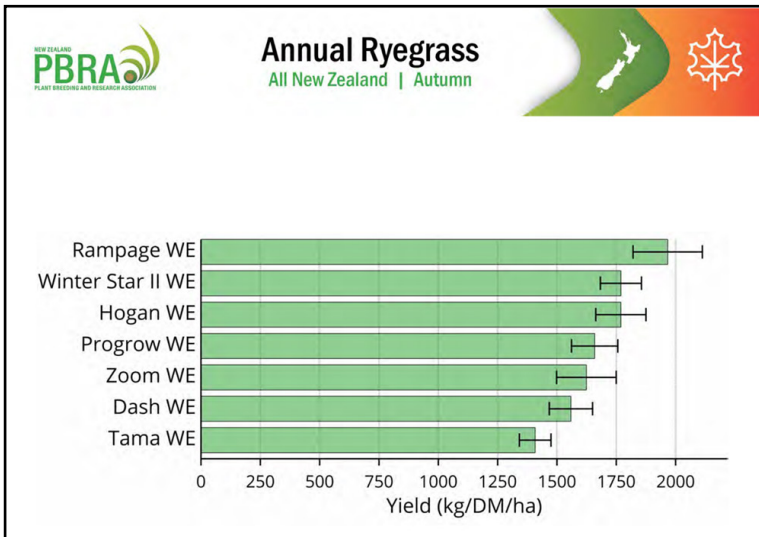


BENEFITS

- ▶ Rampage has attained highest 5 star ranking in the DairyNZ Forage Value Index for winter feed nationwide
- ▶ Top annual ryegrass in the 2022 NFVT® All New Zealand Summary with exceptional yield across all seasons
- ▶ Very fast establishment with strong cool season performance
- ▶ Holds on well into late spring, early summer
- ▶ High tetraploid forage quality with excellent palatability and grazing utilisation
- ▶ Late heading maintaining forage quality into late spring to maximize animal performance
- ▶ Ideal as a winter feed and for all livestock types



PERFORMANCE - ALL NEW ZEALAND NFVT® 2022 SUMMARY





The specialist winter feed

DESCRIPTION

Zoom is a tetraploid annual ryegrass for late autumn, winter and spring feed. It is suitable for animal grazing and for cutting to make into hay/silage. It has rapid establishment, higher annual yields and its improved persistence gives the option of more feed, for longer.

WHERE IT FITS

A late summer, autumn sown, fast establishing short term feed option. Ideal for use as a break crop or in situations where feed is needed quickly. It produces high volumes of high quality pasture, which can be multi-grazed and can be closed up for silage or hay production. Ideal in between maize or other spring sown, summer harvested crops.

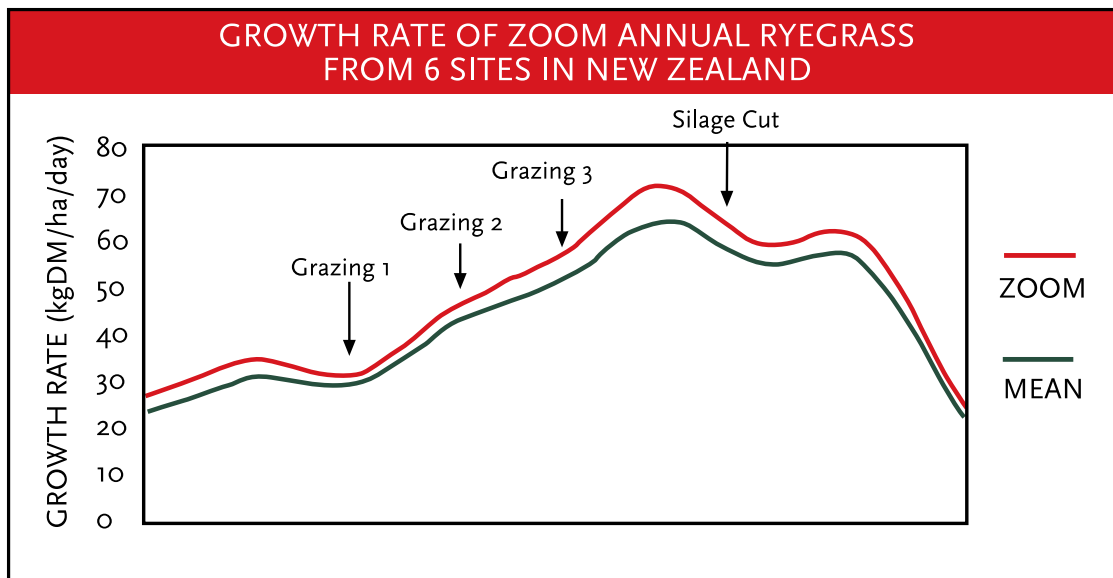
BENEFITS

- ▶ Exceptional autumn, winter and spring yields
- ▶ High tetraploid quality, maintained for longer into spring
- ▶ Highly palatable to livestock
- ▶ Potential of multiple grazings plus a cut of silage or hay
- ▶ Suitable for all livestock types

AGRONOMIC TRAITS

PERSISTENCE (months) *	8-10
HEADING DATE	Late
SOWING RATE (kg/ha)	25-30
RUST RESISTANCE **	9
WINTER ACTIVITY	High
GROWTH PEAK	Autumn - Spring

* Subject to management and climatic conditions
** 1= Susceptible 9 = Resistant



Source: Pooled results of 6 Cropmark annual ryegrass trials conducted at Tokoroa, Waimate, Waipukurau, Ruakaka, Matamata, Carterton (2005-2006).

Note: Zoom is compared to the mean of all other annual ryegrasses in the trials.

HAYMAKER

C4 WARM SEASON ANNUAL GRASS

The cut and carry specialist

DESCRIPTION

Haymaker is a specialist warm season C4 annual grass which makes great quality hay and silage across several cuts throughout the warmest seasons of the year. Best suited to the warmer northern regions of NZ. Not suited for grazing due to its small roots.

WHERE IT FITS

Haymaker can be used as a specialist silage or hay crop throughout northern New Zealand in regions where there is no risk of frosts. Quick to establish to the first cut as well as short intervals to subsequent cuts, four or more cuts can usually be achieved in a season. Haymaker is perfect for sowing late in the season following crop failures or for late plantings.

BENEFITS

- ▶ Short maturity timeframe
- ▶ Multiple cuts
- ▶ Resistant to insects which damage other summer crops
- ▶ High protein levels
- ▶ High water use efficiency
- ▶ Lower risk of nitrates and prussic acid compounds

AGRONOMIC TRAITS

PERSISTENCE (months) *	5-7
DISEASE RESISTANCE	High
SOWING RATE (kg/ha)	6-8
SOWING TIMEFRAME	Soil temp 18°C +
PROTEIN CONTENT	Med - High
GROWTH PEAK	Summer to early Autumn

* Subject to management and climatic conditions

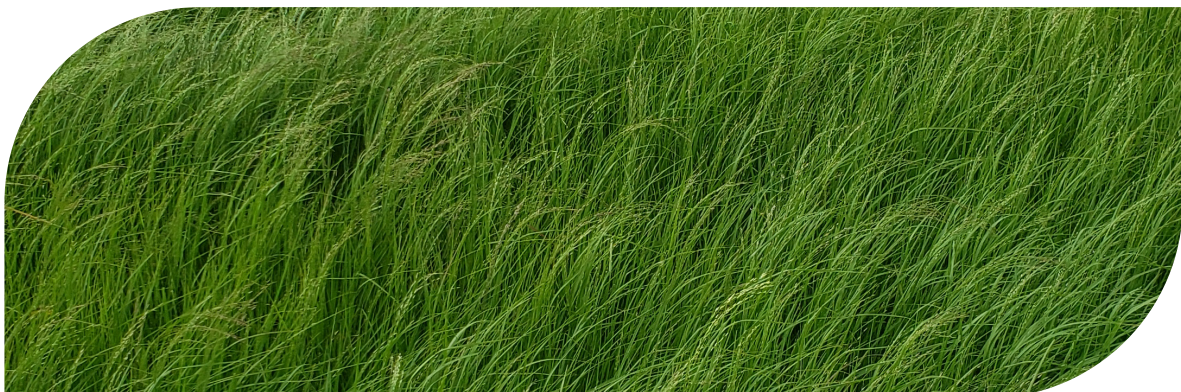
	Haymaker baleage	Pasture baleage	Low grain maize silage
DM	33.9%	35.45%	28-40%
ME	9.7 MJME	9.5-11.5 MJME	10-10.5 MJME
CP%	18% *	12-17%	8%
NDF	53	45-55	53-45-50

Data for Haymaker is from a forage sample taken from a Waikato Haymaker crop, 2021.

Forage quality analysis conducted by Hill Laboratories, Hamilton

Data for the other 2 comparisons comes from DairyNZ facts and figures

* Subject to management and climatic conditions



Cropmark
Kainui
Cocksfoot



The more palatable cocksfoot

DESCRIPTION

Cropmark bred cocksfoot which was selected for leaf density and its soft ryegrass-like leaves which provide it with significantly higher palatability. It is high yielding, summer-dry tolerant and has high tiller density, and very good disease tolerance. It is well suited for inclusion in pasture mixes or as a specialist pasture in summer-dry areas.

WHERE IT FITS

Drilled/broadcast: with clover, and/or plantain and chicory as a specialist pasture for summer-dry prone areas at 6-8kg/ha. Alternatively, include 1-2kg/ha of Kainui in mixes with ryegrass and clovers. Suitable for all livestock types.

Aerially applied: Kainui cocksfoot is available coated with Freshcote seed coating making it ideal to be mixed in with fertilizer and/or lime for aerial broadcasting over hill country. Can also be mixed with coated clover and plantain.

BENEFITS

- ▶ Good tolerance of summer-dry conditions
- ▶ Improved winter activity
- ▶ Grass grub and Porina tolerant
- ▶ Won't cause grass staggers or heat stress

AGRONOMIC TRAITS

PERSISTENCE (years) *	5+
DISEASE RESISTANCE	Very good
WINTER ACTIVITY	Medium - High
GROWTH PEAK	Spring - Summer
TILLER DENSITY	High
SOWING RATE (kg/ha)	MIXES: 1-2 ALONE: 6-8

* Subject to management and climatic conditions

Kainui (left) vs competitor cocksfoot variety (right)



Cropmark
Vision
Cocksfoot



- ▶ Strong growth over all seasons
- ▶ Good drought tolerance
- ▶ Excellent persistence
- ▶ Grass grub and porina tolerant
- ▶ Won't cause grass staggers or heat stress
- ▶ Very good disease resistance
- ▶ Good compatibility with ryegrass and clover

Cropmark
Barrier
 Festulolium



Combining the best traits of meadow fescue and perennial ryegrass

DESCRIPTION

Barrier is a specialist insect tolerant, and highly palatable, animal-safe festulolium variety that is predominately meadow fescue in its breeding background. Barrier has increased dry matter production from its small percentage of perennial ryegrass parentage, however retains all of the strong root structure and “stay green” traits of a meadow fescue.

Containing the GrubOUT® U2 loline producing endophyte, Barrier has strong insect pest tolerance of a wide range of insect pest including grass grub larvae, black beetle adults and larvae, red headed cockchafer, porina caterpillar, black field cricket, root aphid, pasture mealybug and Argentine stem weevil

BENEFITS

- ▶ High livestock performance potential
- ▶ Highly palatable, with high voluntary intake
- ▶ Improved pasture persistence
- ▶ Improved plant tolerance to top feeding and root feeding insects, including grass grub larvae, black beetle adults and larvae, porina caterpillar, black field cricket, root aphid, pasture mealybug and Argentine stem weevil
- ▶ Safer for animals - Won't cause grass staggers or heat stress

AGRONOMIC TRAITS

PLOIDY	Diploid
HEADING DATE	Late
PERSISTENCE (years) *	5+
SOWING RATE (kg/ha)	25-28
SOWING DEPTH (mm)	10-20
SOWING DATES	Autumn and Spring

** Subject to management and climatic conditions*

SOWING RECOMENDATIONS

- ▶ Can be sown as a straight sward, combined with tall fescue or as a minor component in a perennial ryegrass mix.
- ▶ Due to its slow establishment phase Barrier should be spring sown or drilled no later than the end of March in the autumn.





The persistent white clover

DESCRIPTION

A thoroughly proven, high performing, and very persistent medium leaved white clover well suited for sheep, beef and dairy cattle pastures, with superior spring – summer production, high Nitrogen fixation ability and good tolerance to insect pests and leaf diseases. Recommended for inclusion in all pasture mixes.

WHERE IT FITS

Drilled/broadcast: with ryegrass or other grass species at 3-5kg/ha or sown at 2kg/ha in combination with a large leaf white clover such as Mantra. Can also be sown as part of a specialist finishing crop with red clover, chicory and plantain. Suitable for all livestock types.

Aerial application: Demand white clover is available coated with Freshcote seed coating making it ideal to be mixed in with fertilizer and/or lime for aerial broadcasting over hill country.

BENEFITS

- ▶ Small to medium leaf size
- ▶ Higher dry matter production, with strong winter, spring production
- ▶ Strong stolon density
- ▶ Superior persistence
- ▶ Excellent livestock performance potential
- ▶ Better resistance to common clover diseases
- ▶ Suitable for all livestock types and farming systems

AGRONOMIC TRAITS

LEAF SIZE	Small to medium
DISEASE TOLERANCE	Very good
PERSISTENCE (years) *	5+
SOWING RATE (kg/ha)	3-5
SOWING DEPTH (cm)	1-1.5
SOWING DATES	Autumn - Spring

* Subject to management and climatic conditions



** Past research indicates that around 25kgs of N is fixed per 1000kgs DM of legume grown.

Cropmark

Mantra

Large Leafed White Clover



The high yielding large leafed clover

DESCRIPTION

A large leafed, mid-flowering white clover, with high stolon density and a medium growing point to enable better competition with grass in pasture swards. Mantra has high yields with strong winter and early spring growth, very good persistence and good tolerance to sclerotinia. Best suited to rotational grazing.

WHERE IT FITS

White clover is critical for Nitrogen fixation in New Zealand pastures. Overseeding existing pastures with Mantra is a good way to boost pasture clover content and improve pasture nutritive value and stock performance.

BENEFITS

- ▶ Highly competitive in grass swards
- ▶ High yielding, with strong winter, early spring growth
- ▶ High stolon density and stolon length
- ▶ Highly palatable, with finer stems
- ▶ Very good disease resistance including against sclerotinia and rust
- ▶ Very good persistence, even under close sheep grazing

AGRONOMIC TRAITS

LEAF SIZE	Very large
PERSISTENCE (years) *	3-5+
SOWING RATE (kg/ha)	4-6
WINTER ACTIVITY	High
FLOWERING DATE	Early-Mid
GROWTH PEAK	Spring to Autumn

* Subject to management and climatic conditions

Mantra (left) vs competitor large leaf white clover (right)



Cropmark
Reaper
 Red Clover



The palatable and persistent all rounder

DESCRIPTION

A high yielding, large leafed, semi-erect diploid red clover. Reaper is a very palatable variety, with finer stems than traditional red clovers and also has low oestrogen levels.

Suitable for grazing and for hay and silage.

BENEFITS

- ▶ Competitive and compatible in mixes
- ▶ High yielding, with strong winter activity
- ▶ Very good disease resistance, including sclerotinia and rust
- ▶ More tolerant of clover root weevil than white clover
- ▶ Very good persistence, even under close sheep grazing

AGRONOMIC TRAITS

LEAF SIZE	Large
PERSISTENCE (years) *	3-4
SOWING RATE (kg/ha)	4-6
WINTER ACTIVITY	High
FLOWERING DATE	Early-Mid
GROWTH PEAK	Spring to Autumn

** Subject to management and climatic conditions*



Cropmark
Chico
 Dependable Chicory



Rocket fuel for livestock performance

DESCRIPTION

A high yielding, very high quality, leafy chicory. Chico has fast establishment, rapid re-growth, strong insect resistance and good drought tolerance.

WHERE IT FITS

Chico can be used as a specialist and flexible multi-graze summer forage crop for maximising summer milk production in dairy cows or for finishing stock in drystock situations. It can also be used as a component of pasture mixes adding extra quality through the summer when other plants come under moisture stress. It is suited for use with sheep, cattle and deer, and can be used throughout the country, particularly in summer-dry regions.

BENEFITS

- ▶ Very high quality, high yielding summer forage crop
- ▶ High in metabolisable energy and minerals
- ▶ Very high livestock performance potential
- ▶ Improved drought tolerance and nutrient uptake due to deep tap root
- ▶ Fast establishing and flexible grazing management
- ▶ Tolerant of brassica insect pests

AGRONOMIC TRAITS

PERSISTENCE (years) *	2-3
SOWING RATE (kg/ha)	MIXES: 1-2 ALONE: 8-10
DIAMONDBACK MOTH RESISTANCE ***	9
WINTER ACTIVITY	Moderate
GROWTH PEAK	Spring - Autumn

* Subject to management and climatic conditions

*** 1 = Susceptible 9 = Resistant

Chico (left) vs competitor variety (right)





Driving productivity - soils, livestock and farm

DESCRIPTION

A late heading plantain selected for high forage yields under grazing. Oracle exhibits fast establishment with very strong year-round growth, especially over late spring, summer and autumn, with high forage quality. Being late flowering compared to many other plantains, Oracle holds its forage quality for longer into spring.

WHERE IT FITS

Ideal for use as a specialist forage crop, or inclusion in permanent mixtures. Suitable for all livestock types.

BENEFITS

- ▶ A high performance broad-leaf plantain
- ▶ Higher overall dry matter yields
- ▶ Late heading giving livestock greater quality for longer into spring
- ▶ Higher forage quality and mineral content
- ▶ Good drought and heat tolerance

AGRONOMIC TRAITS

PERSISTENCE (years) *	2-3
SOWING RATE (kg/ha)	MIXES: 1-2 ALONE: 8-10
HEADING DATE	Late
FORAGE QUALITY	High
GROWTH PEAK	Spring to Summer

** Subject to management and climatic conditions*

The late heading of Oracle (left) vs competitor (right)





The extremely fast maturing summer turnip

DESCRIPTION

The extremely fast maturing summer turnip available in New Zealand, Marco is a tetraploid tankard type, having a maturity of 55-65 days from sowing to grazing. Marco has a high root to leaf ratio, with large bulb size and good bulb storage ability. It has high grazing preference, is highly palatable, has excellent bolting resistance and high club root resistance.

WHERE IT FITS

Marco can be used as a high yielding spring or summer sown turnip crop in all parts of New Zealand, and with all livestock types. Its very short interval to grazing means less time out of pasture and sowing date flexibility. Marco can also be late sown such as after previous crop failure.

BENEFITS

- ▶ **The extremely fast maturing turnip available (only 55-65 days from sowing to grazing)**
- ▶ Less time out of production
- ▶ Sowing date flexibility – can be used for late sowing, or where crop failure occurs
- ▶ Two Marco crops in one season are possible
- ▶ Large bulbs, with high bulb to leaf ratio
- ▶ Bulb retains its quality for as long as 90 days after sowing
- ▶ Tetraploid quality traits
- ▶ Available in 25kg and 3kg packs

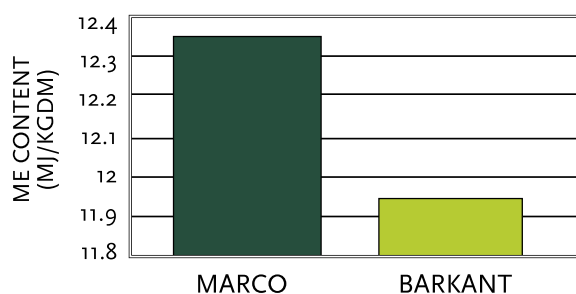
AGRONOMIC TRAITS

SOWING DEPTH (mm)	10
BOLTING RESISTANCE *	9
GROWTH PEAK	Summer
MATURITY (days to grazing)	55-65
PLOIDY	Tetraploid
SOWING RATE (kg/ha)	3

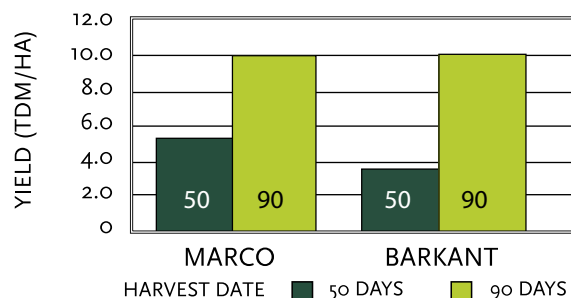
* 1= Low 9 = High



AVERAGE METABOLISABLE ENERGY CONTENT AT 50 DAYS FROM TWO CROPMARK TRIALS AT OHAUPO AND TE PUKE



AVERAGE TOTAL DRY MATTER/HA GROWN FROM TWO CROPMARK TRIALS AT OHAUPO AND TE PUKE



Cropmark **Pillar** Forage Rape



The high yielding multi-graze rape

DESCRIPTION

A fast establishing, high yielding, multi-graze giant-type forage rape with strong re-growth potential and good disease resistance.

WHERE IT FITS

Pillar is a modern NZ bred forage rape, developed for our farming conditions. It can be used as a flexible 2-3 graze forage crop when sown in spring for summer or autumn feed. Can be sown in summer and very early autumn for winter feed. Can be sown into failed winter feed crops, depending on previous chemical used. Pillar is suitable for all livestock types and farming systems and is an ideal break crop as part of a re-grassing programme.

BENEFITS

- ▶ Leafy, giant-type multi-graze forage rape
- ▶ Very fast establishing
- ▶ Very high yield potential
- ▶ Very good re-growth potential
- ▶ Good disease resistance
- ▶ Can be sown in spring or autumn
- ▶ Suitable for sheep, cattle and deer

YIELD RESULTS OF DARFIELD WINTER RAPE TRIAL SOWN 31ST JANUARY 2022 & HARVESTED 5TH MAY 2022

Cultivar	Yield t/ha DM	LSD
Pillar	8.9	a
Greenland	8.1	ab
Spitfire	8.0	ab
Mainstar	7.2	b
Mean (t/ha)	8.15	
LSD	0.67 - 1.5	
Sig	***	

AGRONOMIC TRAITS

SOWING SEASON	Spring or Autumn
MATURITY (days to graze)	90-110
NUMBER OF GRAZINGS *	2-5
SOWING RATE (kg/ha)	3-4
APHID TOLERANCE	Moderate - Good
DISEASE RESISTANCE	Good

* Subject to management and climatic conditions



Cropmark
Coleor
Kale



The leafier kale

DESCRIPTION

A diploid kale, Coleor is a high yielding, very leafy, purplish variety of medium height, with very high leaf-to-stem ratio, typically over 50%. Coleor has high dry matter, digestibility and ME content giving higher livestock performance. It has very good winter hardiness, and very good snow loading ability (less likely to fall over when covered with snow compared to many other kales).

WHERE IT FITS

Being a medium stem kale, Coleor is suited to cattle, sheep and deer as a high yielding winter feed crop.

Suitable for all areas of the country especially in the cooler regions and foothills due to its very good winter hardiness and snow loading ability. Sown in November or December as a winter feed crop. Can lightly graze in autumn.

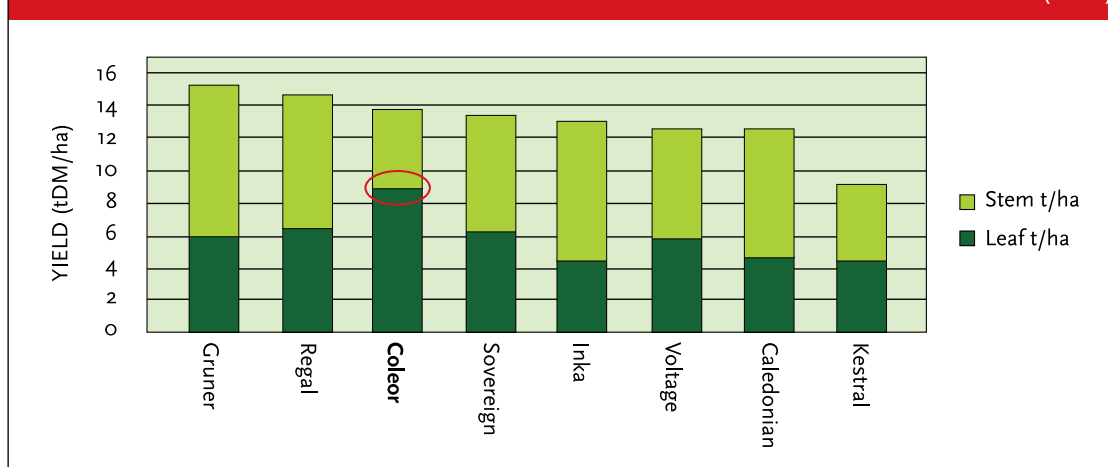
BENEFITS

- ▶ Consistently highest leaf-to-stem ratio (more leaf area, and less stem)
- ▶ High plant Dry Matter content
- ▶ High ME and digestibility
- ▶ High yielding
- ▶ Very good winter hardiness and snow-loading ability
- ▶ Medium stem – suitable for sheep, cattle and deer

AGRONOMIC TRAITS

STEM HEIGHT	Medium
LEAF : STEM RATIO	Very high
SOWING RATE (kg/ha)	4-5
SOWING DATE	Nov-Dec
SOWING DEPTH (mm)	10-20

POOLED YIELD RESULTS OF CROPMARK'S SOUTHLAND & CANTERBURY KALE TRIALS (2010)



Cropmark
Proteor
Kale



The proven performer

DESCRIPTION

A leafy kale of intermediate stem height, with high yield potential. Proteor is a palatable variety with a thin stem and a high leaf-to-stem ratio, ensuring high utilization. Proteor has good winter hardiness and good tolerance of aphids, club root and other diseases.

WHERE IT FITS

Proteor is more suited to cattle grazing where not only yield, but quality is also important. Best sown in November or December as a specialist winter feed crop.

AGRONOMIC TRAITS

STEM HEIGHT	Medium
LEAF : STEM RATIO	High
SOWING RATE (kg/ha)	4-5
SOWING DATE	Nov-Dec
SOWING DEPTH (mm)	10-20

POOLED RESULTS OF TWO CROPMARK KALE TRIALS SOWN 2019 AND 2020, AT METHVEN

Cultivar	Mean DM % of the whole plant	Mean leaf % DM basis	Grazing preference
Coleor	15.73	52.9	High
Proteor	14.33	36.2	High
Corsa	15.90	34.7	Medium
Regal	14.09	35.1	High
Firefly	13.06	39.5	High
SovGold*	15.00	28.5	

Note: * only in 1 year of trials

BENEFITS

- ▶ High yielding
- ▶ High plant Dry Matter content
- ▶ Highly palatable
- ▶ Good winter hardiness
- ▶ Good aphid and disease tolerance
- ▶ Low nitrate and SMCO content
- ▶ A proven performer





SY Dolomite

DESCRIPTION

SY Dolomite (SY 415-584) is a new feed barley variety from Syngenta that is being released to the New Zealand market in Autumn 2023. SY Dolomite has demonstrated above average yields in both dryland & irrigated environments from both Autumn and Spring sowings.

SY DOLOMITE SPRING BARLEY

SY Dolomite is a new high yielding feed barley bred by Syngenta in the UK and developed in NZ in conjunction with Cropmark seeds as head licensee. SY Dolomite is a moderate to stiff strawed cultivar with intermediate maturity making it well suited to a range of different farming situations. It shows good resistance to most diseases and has a wide sowing window from May through to October.

SY Dolomite produces a large grain with average screenings and test weight.

DISEASE AND AGRONOMIC PROFILE FOR SY DOLOMITE BARLEY (FAR 2021-22 AUTUMN CULTIVAR BOOKLET).

Scald	Intermediate resistance
Leaf Rust	Moderately susceptible
Net Blotch	Moderately resistant
Powdery mildew	Resistant
Straw strength	Moderate - Stiff
Lodging risk	Low
Crop height	Medium
Maturity	Intermediate

YIELDS

SY Dolomite has been trialed for many years and is well proven across all sites, producing consistent and reliable yields across all sowing times, whether it be dryland or irrigated, for autumn sowing or for spring sowing.

Table 1. Yields from 2021/2022 autumn barley CPT trials at St Andrews (dryland, sown 7th May 2021), Chertsey (irrigated, sown 14th May 2021) and Balfour (dryland, sown 23rd April 2021)

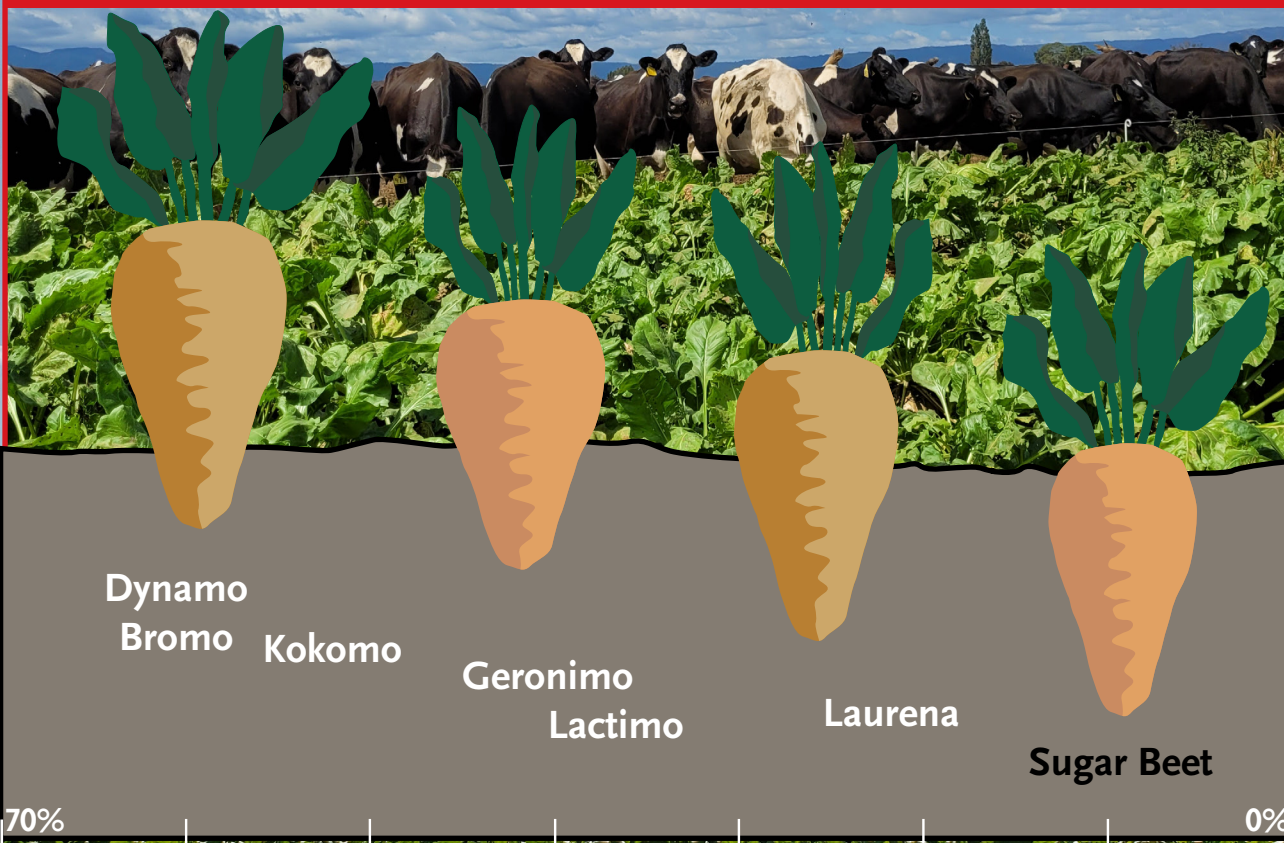
	St Andrews	Chertsey	Balfour
SY Dolomite	9.1	12.3	9.5
Tavern	9.1	11.1	8.3
RGT Planet	9.2	10.8	7.6
Fortitude	9.2	11.7	8.6
Site mean yield	8.9	11.3	8.4
LSD	0.4	0.6	1.1
CV %	3.0	3.6	8.8

The information given in the document is for general guidance only. Whilst every care has been taken to ensure it is accurate, it is, out of necessity, of a general nature and variation in growing environment or climate can render it inaccurate. Syngenta and Cropmark Seeds cannot accept any liability arising out of or in connection with the use of this information. Crop protection products should be used in conjunction with manufacturers' recommendations. Use pesticides safely and always read the label completely before use

Fodder beet overview



% OF BULB ABOVE GROUND



VARIETY	BULB PERCENTAGE ABOVE GROUND	DM%	SUITABLE FOR:	
			GRAZING	LIFTING
DYNAMO (OE967)	+/- 60%	12-14	***	
BROMO (OE962)	+/- 60%	12-14	***	
KOKOMO (OE968)	+/- 55%	14-16	***	
LACTIMO	=/- 45%	15-17	***	
GERONIMO	+/- 50%	16-18	***	*
LAURENA	+/- 30%	20-22	**	***

* = Less suitable *** = Most suitable

DM % and % of bulb above ground can vary for each variety depending on sowing rate and environmental conditions

Cropmark

Dynamo
Fodder Beet



The latest in fodder beet genetics

DESCRIPTION

Dynamo is a recently bred, low dry matter mono-germ fodder beet variety released to the New Zealand market for the first time this year. Proven throughout New Zealand in a range of on-farm trials, Dynamo represents the newest genetics available in fodder beet breeding with very good disease and bolting tolerance.

Dynamo has a soft fleshed bulb with an average dry matter of 12-14% and is easily grazed by animals of all ages due to its large protruding red bulb that sits 60%+ out of the ground.

BENEFITS

- ▶ Easily grazed by stock due to the majority of the bulb sitting higher above ground
- ▶ Suitable for all stock types but especially suited to sheep and young stock
- ▶ Seed is pelleted with world leading technology and coated with insecticide and/or fungicide-only options
- ▶ Available in handy 50,000 seed units

AGRONOMIC TRAITS

SOWING SEASON	Spring
SOWING RATE (seeds/ha)	80,000 - 100,000
MATURITY (days to graze)	200+
BULB PERCENTAGE ABOVE GROUND	+/- 60%
DRY MATTER % *	12-14%
BOLTING TOLERANCE *	Very good
DISEASE TOLERANCE *	Very good

* Subject to management and climatic conditions



Cropmark
Bromo
 Fodder Beet



The lower dry matter fodder beet

DESCRIPTION

Bromo (OE962) is a recently bred, low dry matter mono-germ fodder beet variety released to the New Zealand market for the first time this year.

Bromo is a brother line to Dynamo.

Proven throughout New Zealand in a range of on-farm trials, Bromo represents the newest genetics available in fodder beet breeding with very good disease and bolting tolerance.

Bromo has a soft fleshed bulb with an average dry matter of 12-14% and is easily grazed by animals of all ages due to its large protruding red bulb that sits 60%+ out of the ground.

BENEFITS

- ▶ Easily grazed by stock due to the majority of the bulb sitting higher above ground
- ▶ Suitable for all stock types but especially suited to sheep and young stock
- ▶ Seed is pelletised with world leading technology and coated with insecticide and/or fungicide-only options
- ▶ Available in handy 50,000 seed units

AGRONOMIC TRAITS

SOWING SEASON	Spring
SOWING RATE (seeds/ha)	80,000 - 100,000
MATURITY (days to graze)	200+
BULB PERCENTAGE ABOVE GROUND	+/- 60%
DRY MATTER %	12-14%
BOLTING TOLERANCE *	Very good
DISEASE TOLERANCE *	Very good

** Subject to management and climatic conditions*



Cropmark
Kokomo
 Fodder Beet



The new beet on the block

DESCRIPTION

Kokomo is a new mono-germ fodder beet variety available to the New Zealand market this season which has a similar breeding background/parentage to Dynamo but with a slightly higher bulb dry matter percentage range of 14-16%. Kokomo has a large red tankard shaped bulb that sits approximately 50%+ above the ground with good disease and bolting tolerance. The crop can be grazed in-situ by all stock types.

BENEFITS

- ▶ Latest fodder beet genetics available
- ▶ Consistently high yielding in all on-farm trials to date
- ▶ Large top growth
- ▶ Seed is pelletised with world leading technology and coated with insecticide and/or fungicide-only options
- ▶ Available in handy 50,000 seed units

AGRONOMIC TRAITS

SOWING SEASON	Spring
SOWING RATE (seeds/ha)	80,000 - 100,000
MATURITY (days to graze)	200+
BULB PERCENTAGE ABOVE GROUND	+/- 50%
DRY MATTER % *	14-16%
BOLTING TOLERANCE *	Very good
DISEASE TOLERANCE *	Very good

** Subject to management and climatic conditions*



Cropmark

Geronimo
Fodder Beet



The reliable all rounder

DESCRIPTION

Geronimo is a thoroughly proven and consistently high yielding mono-germ fodder beet that sits approximately 50% above the ground. With a dry matter content of 16-18%, Geronimo has a yellow-orange tankard shaped bulb, and has very good tolerance to the diseases rhizomania, ramularia and some forms of mildew. The crop can be grazed in-situ, or lifted and fed whole or chopped.

BENEFITS

- ▶ Reliable even germination
- ▶ Large top growth with excellent green leaf retention late into season
- ▶ Very good bolting tolerance
- ▶ Suitable for sheep, cattle and deer for grazing in-situ or lifted and fed out later
- ▶ Seed is pelletised with world leading technology and coated with insecticide and/or fungicide-only options
- ▶ Available in handy 50,000 seed boxes

AGRONOMIC TRAITS

SOWING SEASON	Spring
SOWING RATE (seeds/ha)	80,000 - 100,000
MATURITY (days to graze)	200+
BULB PERCENTAGE ABOVE GROUND	+/- 50%
DRY MATTER % *	16-18%
BOLTING TOLERANCE *	Very good
DISEASE TOLERANCE *	Very good

* Subject to management and climatic conditions



Cropmark

Laurena
Fodder Beet



The high dry matter fodder beet

DESCRIPTION

Laurena is a new generation beet which is brand new to the New Zealand market. Laurena is a very high DM fodder beet originating from Europe. It has white/green, conical shaped bulbs that sit +/- 30% above the ground. Laurena is a very high yielding variety with a bulb dry matter percentage of 20-22%. Laurena has tolerance to the fodder beet diseases rhizomania and rhizoctonia. The crop is most suited to lifting, fed whole or chopped.

BENEFITS

- ▶ Very high dry matter yield potential
- ▶ Good disease tolerance, including rhizoctonia
- ▶ Stores very well as high in DM (20-22%)
- ▶ Suited to lifting with consistent bulb height
- ▶ Seed is pelletised with world leading technology and coated with insecticide and/or fungicide-only options
- ▶ Available in handy 50,000 seed boxes

AGRONOMIC TRAITS














SOWING SEASON	Spring
SOWING RATE (seeds/ha)	80,000 - 100,000
MATURITY (days to graze)	200+
BULB PERCENTAGE ABOVE GROUND	+/- 30%
DRY MATTER % *	20-22%
BOLTING TOLERANCE *	Very good
DISEASE RESISTANCE	Good

* Subject to management and climatic conditions



Sowing guide



	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	
PERENNIAL RYEGRASS 			Avatar / Raider / Ultra / Matrix										
HYBRID RYEGRASS 			Frenzy										
ITALIAN RYEGRASS 			Appeal / Vibe										
ANNUAL RYEGRASS 							Zoom/Rampage						
HAYMAKER 			Haymaker										
COCKSFOOT 				Kainji/Vision									
CLOVER 			Demand / Mantra / Reaper										
HERBS 				Chico									
				Oracle									
LUCERNE 				Galaxie Max				Galaxie Max					
KALE 				Coleor / Proteor									
FORAGE RAPE 				Pillar									
BARLEY 		SY Dolomite							SY Dolomite				
TURNIP 				Marco									
FODDER BEET 		Dynamo / Bromo / Kokomo / Geronimo / Laurena											



CROP COTE™

SEED TREATMENT FOR:

Grass: Grass grub larvae and black beetle adults

Brassicas: Aphids, Argentine stem weevil, springtails and Nysius



CROP COTE PLUS™

SEED TREATMENT FOR:

Grass: Grass grub larvae, black beetle adults, Argentine stem weevil

Brassicas: Aphids, Argentine stem weevil, springtails and Nysius

FRESHCOTE

SEED COATING FOR:

Grass: lime and molybdenum coating for over-sowing

Herbs: lime and molybdenum coating for over-sowing

Clover: lime, molybdenum and inoculant coating for over-sowing

Cropcote and Cropcote Plus withholding period: stock must not graze sown pasture within 42 days after planting. For oversowing / stitching in seed, do not graze before 21 days after planting.

RAMPART/CRUISER

SEED TREATMENT FOR:

Fodder beet: With higher disease pressure arising in areas of NZ, Cropmark has added the systemic fungicide Rampart (Penthiopyrad) to it's fodder beet seed treatment this spring.

Rampart will be coupled with the fungicide Tachigaren.

Alternatively, the addition of the systemic insecticide Cruiser is available on request and will protect against beet yellow virus that is transmitted to fodder beet crops by aphids.



Permanent Pasture Mixes

Cropmark
Platinum Dairy
Pasture Pack

One hectare pasture pack. 25kg/ha

A premium certified seed mix including late flowering diploid proprietary perennial ryegrasses with novel endophyte and large and medium proprietary white clovers.

Cropmark
Platinum Performance
Pasture Pack

One hectare pasture pack. 25kg/ha

A premium certified seed mix including late flowering diploid and tetraploid proprietary perennial ryegrasses with novel endophyte and large and medium proprietary white clovers.

Cropmark
Platinum Persistence
Pasture Pack

One hectare pasture pack. 25kg/ha

A premium certified seed mix including late flowering diploid proprietary perennial ryegrass with standard endophyte and large and medium proprietary white clovers.

Cropmark
Platinum Sheep & Beef
Pasture Pack

One hectare pasture pack. 25kg/ha

A premium certified seed mix including late flowering diploid proprietary perennial ryegrasses with novel endophyte and medium proprietary white clover.

Custom blending

You can create your own unique custom blend of Cropmark Seeds products to meet your specific requirements and drive on-farm productivity

