

# PASTURE OPTIONS GUIDE 2020



## Growing Great Results with Farm Source

Productive pasture is key to a successful dairy farm so there's much to consider when choosing seed: annuals, Italians, hybrids, perennial, clover, chicory, plantain...

Your Farm Source team can provide pasture options for you to suit local conditions. Plus, your local TSR can visit to make a recommendation about your pasture options, taking into account the individual factors affecting your farm.

Our TSR's are out on-farm all year round talking with specialists, industry organisations and contractors in the field. They regularly receive information about the best pasture solutions for your area which take into account climate, soil type and the DairyNZ Forage Value Index.

**Whether you are renewing pastures post crop or improving existing pasture, we have varieties to suit your situation.**

**Visit your local Farm Source team in-store, or call us on 0800 731 266.**

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## Pasture Condition Score Tool

The Pasture Condition Score Tool helps determine what action to take to improve your pasture depending on its condition.

Assess each paddock on the farm and give a score from 1 to 5 using the photos and descriptions below. Consider the suggested actions to develop an action plan for each paddock.

Choose the best performing cultivar and endophyte for your farm using DairyNZ's Cultivar Selector Tool – visit [www.dairynz.co.nz/fvi](http://www.dairynz.co.nz/fvi)

For more information, visit [www.dairynz.co.nz/pasturerenewal](http://www.dairynz.co.nz/pasturerenewal)

*\* Suggested actions are North Island based.*



### DESCRIPTION

Whole paddock has dense sward of desired grasses and clovers.

### SUGGESTED ACTIONS

No action required. Would be happy if whole farm in this state.



### DESCRIPTION

Parts of the paddock show signs of low level damage, less vigorous grasses and some weeds.

### SUGGESTED ACTIONS

Check fertility. Apply summer N to encourage tillering. Paddock probably OK for coming season.





### DESCRIPTION

Majority of paddock has low level damage, some weeds, and less vigorous grasses.

### SUGGESTED ACTIONS

Apply summer N. Undersow in the following autumn with perennial ryegrass containing appropriate endophyte.



### DESCRIPTION

Parts of the paddock have severe damage, a lot of weeds and bare ground.

### SUGGESTED ACTIONS

Either:

- Sow into summer crop this spring, and plan to sow in perennial pasture in the autumn, or;
- This spring oversow chicory with fertiliser, or undersow paddocks with chicory, and plan to renew in 6-18 months, or;
- Undersow with Italian, or annual ryegrass in autumn, and plan to renew in following 6-12 months.



### DESCRIPTION

Entire paddock severely damaged.

### SUGGESTED ACTIONS

Sow into summer crop this spring, and plan to sow in perennial pasture in the autumn.

### Spraying out for pasture renewal

A thorough spray out prior to planting your spring pasture can greatly improve the cultivated seedbed and early establishment.

Using the right rate of WeedMaster® TS540, Pulse® Penetrant and a companion herbicide where required will ensure the pasture will get off to a great start.

#### WEEDMASTER TS540

- A high strength glyphosate with a unique Twin Salt™ formulation providing reliable and consistent results for farmers every time it is used.
- Quicker turnaround to graze, cultivate or drill – 24 hours for annual weeds and 3 days for perennial weeds.



#### PULSE PENETRANT

- Improves penetration and uptake of WeedMaster TS540, especially in spring growing conditions.
- Also aids in the performance of WeedMaster TS540 – providing 20 minutes rainfast.

### Spraying tips

For grass to grass, graze paddock hard to reduce weed cover. Allow the pasture to freshen up, and spray out with glyphosate at correct label rate. Ensure plants are actively growing and have at least 5-10 cm of green leaf for effective glyphosate absorption.

Hard graze to remove vegetation (refer to label use directions for recommended application to grazing intervals). Direct drill the required quantity of seed.

Where cultivation is required or preferred, leave the paddock for a further seven days after the removal of the vegetation before cultivation commences. This will allow a faster breakdown of root material, making it easier to form a firm seedbed.

## Managing weed burden for existing pasture

If you're looking for ways to get more out of your existing land and pasture this season, a herbicide spray programme may be just the solution you need.

Weeds like thistles, pennyroyal, water pepper, willow weed, buttercup, fleabane, hedge mustard and daisy germinate under existing pasture covers. Once pastures are grazed, however, these weed seedlings and small plants are then exposed to sunlight and their growth takes off rapidly which will reduce the amount of quality pasture dry matter (DM) that can be grown productively in future seasons.

**The best time to control weeds is between germination and flowering when they are growing fast and are still susceptible to herbicides.**

To get the best out of your spray application, graze paddocks before spraying to expose the target weeds, and to reduce clover leaf area which in turn minimises clover damage. Let the paddock freshen for two to three days, and aim to spray as soon as possible thereafter, weather permitting. Observe any withholding periods and restrictions before grazing treated pastures.

**Choosing the right product for your specific needs will come down to your weed species range, application method, clover selectivity requirements, timing, seasonality and location.**

### CONQUEST

- Herbicide suitable for the spot treatment of many broadleaf weeds including ragwort, thistles and docks. Also used for control of gorse, broom, blackberry and other brushweeds.



### TRIBAL GOLD

- Ultimate selective herbicide for early control of broadleaf weeds in new and established pasture.



### Undersowing into existing pasture

Graze hard to remove as much cover as possible.

Sow required seed, graze again 21 days later and keep pasture cover short to allow the establishment of the new grass and clover.

Ideally clovers would not be drilled more than 1cm deep and ryegrass no more than 3cm deep.  
Sow mixtures at 1cm deep.

### Controlling weeds after undersowing

The usual technique with undersowing is to graze the area hard and direct drill grass seed at about 12 kg/ha, using a hybrid or Italian ryegrass variety to provide fast feed over the winter months. However, it is also common for many farmers to undersow with perennial ryegrass varieties. In either case, any paddocks open or damaged enough to warrant undersowing in the first place will also have a reasonable amount of weeds present.

Once undersowing is completed, there is good opportunity for weed control.

After drilling, undersown pastures are unlikely to be grazed for 5 – 6 weeks, sometimes longer. At this stage the weeds will still be present and while spraying them to reduce the level of competition for the establishing seedling ryegrass is not usually practical, it does make sound economic sense to implement a spray programme after the first grazing, to protect what is a significant financial investment.

2,4-D amine products such as Baton® 800WSG or Sprinter® 700DS tank mixed with Valdo® 800WG are recommended for spraying undersown pastures. Baton 800WSG@ 2.0kg/ha or Sprinter 700DS @ 2.3L/ha in tank mix with Valdo @ 65g/ha will be effective. When using Valdo, Bonza should be added @ 500ml/100L water.

This mix will be not too tough on the clover that will be present in most cases (although is often not undersown) and it offers broad spectrum control for the weed species likely to be present.

#### SPRINTER 700DS

- Aids faster recovery and greater contribution to pasture production with the ability to target weeds at the correct growth stage throughout the year.



#### BATON 800WSG

- Controls broadleaf weeds in new and established pasture and is less damaging to valuable clovers than traditional 2,4-D ester formulations.

## Forage Value Index Overview

The DairyNZ Forage Value Index (FVI) is an independent, region-specific and profit-based index for short-term and perennial ryegrass cultivars. The tool allows farmers to make more informed, confident, and profitable decisions when choosing ryegrass cultivars for their pasture renewal programme.

The FVI is based on independently calculated Economic Values (EV) and Performance Values (PV) for different traits. A PV is the total increase or decrease in a trait such as seasonal dry matter (DM) yield over a period relative to the genetic base. The genetic base for the seasonal DM traits for instance is the average of a group of cultivars from before 1996. An EV is the effect on profit (in \$) of a 1-unit change of a trait. Economic values are calculated using representative farm models in four dairy regions of New Zealand (Upper North Island, Lower North Island, Upper South Island, and Lower South Island).

The short term ryegrass categories (12 month and winter feed) have FVI calculated based on seasonal DM yield traits using cultivar-specific PV.

The perennial ryegrass FVI initially used only seasonal dry matter (DM) yield traits from three-year National Forage Variety Trials, but from the 1 February 2019 these results will include seasonal metabolisable energy (ME) content and persistence traits. The ME and persistence traits are based on average performance values across groups of cultivars ('functional groups', that we found conformed similarly in trials'). These new traits still feed into an estimate of FVI for each perennial ryegrass cultivar (Figure 1). Consequently, farmers can select their top perennial ryegrass cultivars based on seasonal DM, seasonal ME and persistence combined.

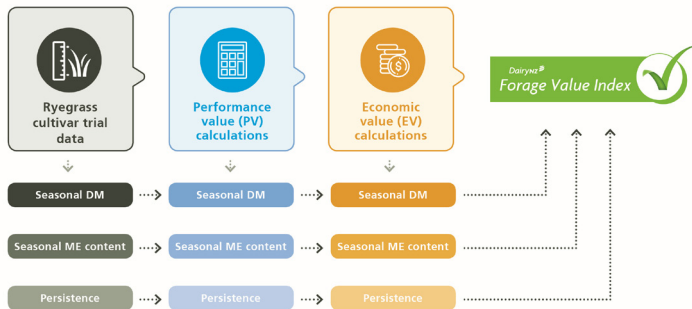


Figure 1: Forage Value Index: Summary of the trait components for perennial ryegrass

The overall FVI calculated for each cultivar is converted into a star rating to represent its rank in the FVI. Results of the FVI and PV of cultivars are presented using a 1-to-5 star rating in the Cultivar Selector Tool. Top cultivars receive 5 stars and the bottom cultivars receive 1 star.

The FVI will steadily strengthen over time as more research is carried out to ensure more trait and cultivar-specific data (especially for traits such as energy concentration and persistence in perennial ryegrasses) are included.

For more information on the FVI and Cultivar Selector Tool, visit [dairynz.co.nz/fvi](http://dairynz.co.nz/fvi).

## The *SHOGUN* advantage

Shogun, with its unique combination of performance and flexibility, overcomes some of the limitations of existing pasture renewal techniques and makes higher rates of renewal a reality.

A common factor stopping farmers renewing more pasture is their high stocking rate (relative to a farm's pasture production), meaning only limited areas of the farm can be taken out of grazing for resowing. Shogun helps resolve this long-standing challenge.

Key benefits from Shogun with NEA for increased pasture renewal:

- Exceptional DM yield
- Ideal for undersowing
- Fast establishment
- Winter growth with flexibility

### EXCEPTIONAL DM YIELD

Over a 12 month period, Shogun produces more than most perennial ryegrasses in summer and autumn, and in winter and early spring its growth is comparable to an Italian.

### FAST ESTABLISHMENT

Shogun's fast establishment is comparable to that of an Italian ryegrass. This means paddocks resown with Shogun are back into the grazing rotation more quickly than those renewed with perennial or other hybrid ryegrasses.

*Shogun produces significantly more growth over summer, increasing total feed supply over a 12 month period.*

### UNDERSOWING

Undersowing can improve thin pastures for 1 - 3 years prior to full renewal. Research has shown over 99% of seeds in the soil on dairy farms are weeds<sup>1</sup>, and these can take over if thin pastures aren't thickened with ryegrass. Shogun is tailor-made for this purpose, with a mix of attributes unlike any other cultivar.

Shogun establishes very rapidly, similar to Italian ryegrass, giving better, more reliable results from undersowing. This is the most important advantage of Shogun compared with undersowing perennial ryegrass, because seedlings must be able to compete well with existing pasture.



## Hogan

Hogan is the top performing annual in the industry NFVT trials and has fast establishment and regrowth from grazing which makes it an ideal 6-12 month option.

Key benefits from Hogan:

### HIGH VALUE

Hogan establishes rapidly and produces high DM yield, to out yield old (pre-1981) cultivars Moata and Tama by around 1 tDM/ha. The value of this extra cool season feed is \$380/ha\*, for an extra seed cost of \$35-45/ha to sow Hogan.

(\*\$380/ha or 38c/kgDM value for establishment autumn - spring pasture in the DairyNZ Forage Value Index.)

### FAST ESTABLISHMENT

A key part in breeding Hogan was rapid establishment (23% faster than old cultivars Moata and Tama). This provides 'fast feed' in autumn, critical to dairy systems.

## Tabu+

Tabu+ is a 12-24 month pasture option, and is the only five star ryegrass sitting in the 'winter feed' category of the 2018 DairyNZ Forage Value Index.

Key benefits from Tabu+:

### HIGH PERFORMANCE

Tabu+ was bred to supersede the best selling Tabu, with significantly higher DM yield. It is nutritious, with explosive establishment speed and superior cool season growth.

### UP TO THREE YEAR OPTION

Tabu+ has the flexibility of being sown as a 12 month option, often to clean up weeds, allowing a double spray programme prior to sowing a permanent pasture. Alternatively it can be used for a 2-3 year high performance pasture in the lower North Island or higher altitude areas.

## Cocksfoot

Cocksfoot (*Dactylis glomerata*) is a very persistent perennial grass that tolerates summer dry conditions, moderate soil fertility and insect attack.

- Cocksfoot is used to enhance the growth and persistence of permanent pastures in very dry areas. It also adds variety to the stock diet.
- New fine leaved cocksfoot cultivars are much more compatible with ryegrass, giving better long term pastures.
- Cocksfoot is quite slow to establish and has lower digestibility than most other grasses. Cocksfoot has limited winter growth but good summer growth.

## Tall fescue

Tall fescue (*Festuca arundinacea*) suits some situations but not others. It is a perennial grass more tolerant of hot summers and poorly drained soils than perennial ryegrass.

- Tall fescue is sensitive to soil temperature so must be sown when soil temperatures are above 12°C. It is slower to establish than ryegrass, so it is more important to have a good weed free seedbed.
- In NZ Tall fescue is mainly sown in dry areas for its summer growth and good clover content, performing best on clay soils, where its deeper rooting ability can utilise more soil moisture than ryegrass.
- Tall fescue needs to be grazed at the correct time in spring, more frequently than ryegrass, to prevent a loss of feed quality.
- Tall fescue cannot be sown with ryegrass, as the ryegrass is much faster to establish and will dominate the pasture.
- Sow tall fescue at 20-25 kg/ha with suitable white clovers.

# Ecotain® environmental plantain

Ecotain® environmental plantain significantly reduces nitrogen leaching without compromising production.

## THE SCIENCE

Research has demonstrated that not all plantains (current cultivars or breeding lines) are capable of reducing nitrate leaching from the urine patch through the four aspects Ecotain can – dilute, reduce, delay and restrict. Work by Massey and Lincoln universities, along with Plant and Food Research and Agricom have shown that Ecotain increases the volume of cows' urine which dilutes the concentration of nitrogen, it reduces the total amount of nitrogen in animals' urine, it delays the process of turning ammonium into nitrate in the urine patch, and it restricts the accumulation of nitrate in Ecotain-growing soil. With the potential to reduce nitrogen leaching by up to 89%<sup>1</sup> from the urine patch, Ecotain is an excellent mitigation tool.

## AGRONOMICS

In addition to being a highly effective nitrogen leaching mitigation technology; Ecotain is an excellent forage, providing winter activity and drought tolerance, along with animal health performance benefits across virtually all high performing, pastoral based farm systems.

## IMPLEMENTATION

The easiest way to get Ecotain on farm is to sow it with new perennial pastures. Pasture mixes that include Ecotain can be established the same way as ryegrass/white clover pastures, and the environmental effectiveness of new pastures is very high.

Undersowing via direct drilling or broadcasting into damaged and open pastures works well to extend the life of pastures as well as providing environmental benefits, and broadcasting Ecotain is a useful addition when applying fertiliser. When utilising this technique, it is important to remember that the success of broadcasting will be based on the openness of pasture.

Ecotain dominant stands, or Ecotain stands with clover are also effective implementation strategies. An Ecotain dominant stand provides high and consistent levels of Ecotain content and fits very well as a short rotation pasture or as a break crop in a pasture renovation programme (similar in use to Italian or hybrid pastures). Including clover is ideal for 2-3 year lactation feeding or an inter-crop restorative phase.



*Ecotain environmental plantain*



*Winter dormant plantain (left) with Ecotain environmental plantain (right). Photo taken 28 June 2018.*



## Ryegrass varieties

### Annual Ryegrass

- Similar to an Italian ryegrass with fast establishment, good winter feed growth and feed value which generally persists for 9-12 months.

### Italian Ryegrass

- Italian ryegrasses are natural bi-annuals, they are characterised by a strong establishment and last 1-2 years or longer depending on conditions. Generally more persistent than annual ryegrass.

### Hybrid Ryegrass

- Generally derived from crossing perennial ryegrass and Italian ryegrass. Good feed quality and winter growth. Typically persist from 2-5 years, depending on conditions.

### Perennial Ryegrass

- Excellent base for permanent pasture mix, with good stock palatability and establishes well. The most commonly used permanent pasture grass in New Zealand.

## Diploid vs Tetraploid

The main difference between diploid and tetraploid ryegrass is the number of chromosomes per cell. Diploid ryegrasses have two sets of chromosomes per cell, compared to a tetraploid which has four.

Diploids combine yield and robustness. They have more tillers per plant and due to the lower water content per cell have a higher dry matter per kg of feed and also more energy than tetraploid plants. Most ryegrass and red clovers cultivars are diploid.

Tetraploid ryegrasses are naturally high in sugars which makes them more palatable to livestock and improves intake and production.

## Endophyte Types

An endophyte is a fungus found in many grass species including ryegrass. It provides the plant with protection from insects. There are several types of endophytes available, understanding which is more suitable for your farm system will help you to maximise productivity.

## Seed Treatment

Seed treatment is the process of coating individual seeds with a mix of chemicals to protect and enhance establishment. The coatings contain insecticide and fungicide to help protect young plants from insect attack and disease and will last approximately six weeks post-sowing. Seed treatment gives good control of low to moderate insect pressure.

Treated seed may not be suitable in all situations or a wider control programme may be required. For more information contact your Farm Source TSR.



## Custom mixing

Growing the right pasture, at the right time, in the quantities you need is all part of the equation.

We know it takes a great deal of hard work and planning – from your renewal programme and choice of seed, to dealing with a variety of weed types – and we're here to help.

Farm Source can custom mix seed for you using our access to all the seed varieties and expertise from leading seed production companies including Barenbrug Agriseeds, Agricom, PGG Wrightson Seeds, Seed Force, and DLF Seeds.

We'll work to ensure you get the pasture that meets your requirements. Your local TSR can visit to make a recommendation about your pasture options, taking into account the individual factors and environmental situation affecting your farm.

## Pasture Packs

Alternatively, we have a range of ready made pasture packs available.

Each of our Farm Source Pasture Packs contain a specialised mix of seed to meet the variations in insect control, climate, soil type, paddock use and farm facilities to deliver the best possible results.

All seed in our Pasture Packs have been cool stored in facilities that exceed industry standards and have been tested to ensure high levels of active endophyte.

Read more on the following pages or contact your local TSR for more information and availability.

## GREEN PACK

### RYEGRASS TYPE

DIPLOID PERENNIAL

### ENDOPHYTE OPTIONS

NEA2

### SEED TREATMENT OPTIONS



AGRICOTE TREATED OR BARE

### HEADING DATE

LATE HEADING +16 DAYS

### SOWING RATE

Refer to pack label for details

| GREEN                                |         |      |
|---|---------|------|
| <b>TROJAN</b> <br>PERENNIAL RYEGRASS | TREATED | 21kg |
| <b>KOTUKU</b><br>WHITE CLOVER   | TREATED | 2kg  |
| <b>WEKA</b><br>WHITE CLOVER   | TREATED | 2kg  |

**The Green Pack is suited to high performing farm systems** where both seasonal dry matter (DM) yield and total DM yield are key requirements, along with high feed quality and excellent persistence.

- Trojan NEA2 sets a new standard of DM yield but, most importantly the variety has the ability to produce this growth at the shoulders of the season, in winter/early spring and autumn, when the normal end of season feed pinch can affect production. Trojan is now New Zealand's 'most preferred' perennial ryegrass.
- Trojan contains NEA2 endophyte which supports high animal performance, good control of Argentine stem weevil and pasture mealy bug (provisional rating only) and moderate control of root aphid.
- The Green Pack contains the high performance white clover combination of Kotuku and Weka. Kotuku is a new large leaved clover with exceptional DM yield, and Weka is medium leaved with excellent persistence and tolerance of clover root weevil.

NOTE: Grass is also available as a straight line or for custom mixing if required.



## GOLD II PACK

**RYEGRASS TYPE**  
DIPLOID PERENNIAL

**ENDOPHYTE OPTIONS**  
AR37

**SEED TREATMENT OPTIONS**  
AGRICOTE TREATED OR BARE

**HEADING DATE**  
MID HEADING +5 DAYS

**SOWING RATE**  
Refer to pack label for details

**LIMITED STOCK  
PRE-HARVEST**

**GOLD II**



**GOVERNOR AR37**  
PERENNIAL RYEGRASS

**TREATED**

**21kg**

**KOTUKU**  
WHITE CLOVER

**TREATED**

**2kg**

**WEKA**  
WHITE CLOVER

**TREATED**

**2kg**

**The Gold II Pack is suited to most farming systems, helping to provide year round yield and a robust, high feed value pasture.**

- Includes Governor AR37 a fine leaved, dense and persistent perennial ryegrass particularly suited to areas affected by porina. It's fine dense habit can help in wet situations, giving more soil protection against treading damage.
- The Gold II pack should not be considered a stand alone defence against porina – i.e. persistence is significantly influenced by pasture management.
- AR37 endophyte is not recommended for pasture grazed by deer or horses due to the risk of ryegrass staggers.
- This pack contains the high performance white clover combination of Kotuku and Weka. Kotuku is a new large leaved clover with exceptional DM yield, and Weka is medium leaved with excellent persistence and tolerance of clover root weevil.
- Please note, there is limited stock currently available. Please talk to your local Farm Source team to confirm your requirements.

NOTE: Grass is also available as a straight line or for custom mixing if required.

## EMERALD PACK

### RYEGRASS TYPE

TETRAPLOID PERENNIAL

### ENDOPHYTE OPTIONS

NEA4

### SEED TREATMENT OPTIONS

AGRICOTE TREATED

### HEADING DATE

LATE HEADING +19 DAYS

### SOWING RATE

Refer to pack label for details

## EMERALD

|                                       |         |      |
|---------------------------------------|---------|------|
| <b>VISCOUNT</b><br>PERENNIAL RYEGRASS | TREATED | 22kg |
| <b>KOTUKU</b><br>WHITE CLOVER         | TREATED | 1kg  |
| <b>WEKA</b><br>WHITE CLOVER           | TREATED | 2kg  |

**The Emerald pack suits farm systems targeting high animal performance** providing high quality feed in all seasons particularly early spring.

- This pack contains Viscount, a new tetraploid perennial ryegrass.
- Viscount has very good total DM yield but importantly has improved early spring growth – a time of year when feed is of the highest value in pastoral systems.
- Viscount has all the features animals love in a pasture: excellent palatability, upright growth for ease of harvest and high quality feed with improved rust tolerance and reduced aftermath heading.
- It contains the NEA4 endophyte, for superior animal performance and improved insect resistance.
- This pack contains the high performance white clover combination of Kotuku and Weka. Kotuku is a new large leaved clover with exceptional DM yield, and Weka is medium leaved with excellent persistence and tolerance of clover root weevil.

NOTE: Grass is also available as a straight line or for custom mixing if required.

# BURGUNDY PACK

## RYEGRASS TYPE

DIPLOID PERENNIAL

## ENDOPHYTE OPTIONS

AR37

## SEED TREATMENT OPTIONS



TREATED OR BARE

## HEADING DATE

LATE HEADING +20 DAYS

## SOWING RATE

Refer to pack label for details

| <b>BURGUNDY</b>  |                |             |
|--|----------------|-------------|
|                   | <b>TREATED</b> | <b>21kg</b> |
| <b>KOTUKU</b><br>WHITE GLOVER  | <b>TREATED</b> | <b>2kg</b>  |
| <b>WEKA</b><br>WHITE GLOVER  | <b>TREATED</b> | <b>2kg</b>  |

**The Burgundy Pack is suited to dairy farms, where yield advantages can be realised.** One50 diploid perennial ryegrass provides excellent summer, autumn and winter production with year round quality and palatability.

- Highly productive perennial ryegrass with the ability to stay green under summer stress which exhibits high rust tolerance.
- AR37 endophyte offers the best long-term, natural protection to porina and root aphid. It also provides very good control of Argentine stem weevil larvae while not compromising milk production.

NOTE: Grass is also available as a straight line or for custom mixing if required.

## PLATINUM PACK

### RYEGRASS TYPE

TETRAPLOID/DIPLOID PERENNIAL MIX

### ENDOPHYTE OPTIONS

NEA4 (VISCOUNT)

NEA2 (TROJAN)

### SEED TREATMENT OPTIONS

AGRICOTE TREATED

### HEADING DATE

LATE HEADING

+19 DAYS (VISCOUNT)

+16 DAYS (TROJAN)

### SOWING RATE

Refer to pack label for details

## PLATINUM

**TROJAN**<sup>TM</sup>  
PERENNIAL RYEGRASS

**TREATED**

**9kg**

**VISCOUNT**<sup>TM</sup>  
PERENNIAL RYEGRASS

**TREATED**

**13kg**

**KOTUKU**  
WHITE CLOVER

**TREATED**

**1kg**

**WEKA**  
WHITE CLOVER

**TREATED**

**2kg**

**The Platinum Pack is a unique combination of tetraploid and diploid perennial ryegrasses,** to provide a balance high palatability, with improved density and persistence.

- Viscount tetraploid ryegrass has all the features animals love in pasture: excellent palatability, upright growth for ease of harvest, high feed quality and reduced aftermath heading.
- Tetraploids don't suit every farm system, so we've added Trojan diploid ryegrass to improve pasture density and pasture persistence. So this tetraploid/diploid mix provides great animal performance with better long term yield.
- Viscount contains NEA4 endophyte, and Trojan NEA2, both providing superior animal performance and good control of insects including Argentine stem weevil.
- The Platinum Pack contains the high performance white clover combination, of Kotuku and Weka. Kotuku is large leaved and very high yielding, and Weka is medium leaved, stoloniferous and very persistent.

NOTE: Grass is also available as a straight line or for custom mixing if required.

# TAN PACK


**RYEGRASS TYPE**  
DIPLOID PERENNIAL

**ENDOPHYTE OPTIONS**  
AR37

**SEED TREATMENT OPTIONS**  
TREATED

**HEADING DATE**  
MID HEADING +12 DAYS

**SOWING RATE**  
Refer to pack label for details

| <div>TAN </div> |         |      |
|--|---------|------|
|                 | TREATED | 21kg |
|                 | TREATED | 2kg  |
|                 | TREATED | 2kg  |

**The Tan Pack is best suited to a variety of situations from hill country to highly productive dairy pastures.** The density of Prospect provides increased persistence under stock pressure. AR37 endophyte provides excellent insect tolerance.

NOTE: Grass is also available as a straight line or for custom mixing if required.



## WHITE PACK

### RYEGRASS TYPE

TETRAPLOID PERENNIAL

### ENDOPHYTE OPTIONS

AR37

### SEED TREATMENT OPTIONS





TREATED

### HEADING DATE

LATE HEADING +22 DAYS

### SOWING RATE

Refer to pack label for details

| <div>WHITE </div> |         |      |
|--|---------|------|
|                   | TREATED | 21kg |
|                   | TREATED | 2kg  |
|                   | TREATED | 2kg  |

**The White Pack includes Base**, a tetraploid perennial ryegrass selected from surviving ryegrasses grown under drought conditions. The AR37 endophyte has excellent persistence and low aftermath heading for better utilisation. Base is the perfect cultivar because it delivers high yields, excellent pasture quality and has a high tiller density.

NOTE: Grass is also available as a straight line or for custom mixing if required.

# RED PACK


**RYEGRASS TYPE**  
DIPLOID PERENNIAL

**ENDOPHYTE OPTIONS**  
AR37

**SEED TREATMENT OPTIONS**  
TREATED

**HEADING DATE**  
MID HEADING +7 DAYS

**SOWING RATE**  
Refer to pack label for details

| <div>RED <b>AR37</b><br/><small>grasslanz endophyte</small></div>   |         |      |
|---|---------|------|
| <div><b>Excess</b><br/><small>PERENNIAL PTERODIS</small></div> | TREATED | 21kg |
| <div><b>KOTUKU</b><br/><small>WHITE CLOVER</small></div>  | TREATED | 2kg  |
| <div><b>WEKA</b><br/><small>WHITE CLOVER</small></div>  | TREATED | 2kg  |

The Red Pack includes Excess, selected for its high yield and persistence which is further enhanced with AR37 endophyte. Excess combines the robustness of a diploid and high yield resulting in an ideal ryegrass for all dairy farms.

NOTE: Grass is also available as a straight line or for custom mixing if required.

[illegible]

**CONDITIONS:** Cultivars in pack may differ to those listed due to availability at time of mixing. The sale of these goods is made strictly on the basis that Fonterra Farm Source, RD1 Limited and the vendor of the goods disclaim all liability, whether express or implied and whether in contract, tort or otherwise, for any loss, damage, claim or injury arising from the result produced by the goods or any failure of the goods to produce a desired result where such result or failure is attributable to any act or omission of the purchaser or any factor beyond the control of Fonterra Farm Source, RD1 Limited or the vendor, including without limitation, purchaser negligence, the storing and sowing of the seed, time of sowing, cultivation, soil conditions, weather conditions, third party intervention and all acts of God. If Fonterra Farm Source, RD1 Limited or the vendor of the goods is found to have any form of liability for any breach of any obligations imposed on them by law, then the purchaser agrees that liability is limited to replacement of such goods or damages not exceeding the original retail price of the goods. Fonterra Farm Source, RD1 Limited and the vendor shall not be liable for any consequential, indirect or special damages or loss of any kind whatsoever including without limitation loss of profits, whether arising from the goods, the result produced or intended to be produced, or from any other cause whatsoever. For specific advice in relation to your farm needs, please consult your local Fonterra Farm Source Technical Sales Rep.