



**Upper Murray Seeds®**  
*Sow much better*

# Productive Pasture Guide

*Our business is growing yours*



Australian Seed Federation  
SOWING SEEDS



# UMS Productive Pasture Guide

Your guide to UMS grasses, lucerne, clover and forage crops.

## Plant Breeders Rights



Plant Breeders Rights is a national system of control which is similar to a patent or a trademark, and granted exclusively to the breeder of a new variety. When Upper Murray Seeds develops a new plant variety, we protect our intellectual property (IP) with Plant Breeders Rights (PBR).

The PBR logo is the hallmark of authenticity and displaying it demonstrates to the public that the plant breeder has exclusive control over the propagating material and harvested material of that variety for many years to come. A plant variety must be proven to be new, distinct, uniform and stable to qualify for the right to display the PBR logo.

All of which means the grower can be assured of reasonable product consistency, which is especially important when strategically planning pasture renovation.



Read our QR codes with the camera on your smartphone to open a link to more detailed product information.

**Cover:** Lavish Forage Oats is a late maturing variety with outstanding total season dry matter yield. See pg 41 for more details.

**Page 2:** The special Silver range of lucerne is exclusive to UMS. See pp 31-34 for more details.

**Page 3:** Stockman is the ultimate phalaris. See pg 29 for more details.

**DISCLAIMER:** All information provided is intended as a guide only. Upper Murray Seeds has taken all due care to ensure the included information is accurate and use of this information is at the user's sole discretion and risk. Varying environmental conditions may alter the performance of products and plants. The sowing rates provided are a guide only. You should refer to your agronomist or advisor for sowing rates suited to your particular situation.

## Our Productive Pasture Guide is designed to help you select the seed varieties that best suit your situation.

### **Sow good results**

It's well-known that the fodder you grow yourself provides the best value stockfeed and that productive and palatable pastures optimise livestock weight gain. Our goal is to help you realise a return on your investment in seed by strategically planning your pasture selection. If you make better choices to renovate your pastures, you're more likely to increase productivity and profitability.

### **Sow much history**

Spanning three generations, the Sutherland family have been key players in the pasture seed business. For 29 years, their family-owned Upper Murray Seeds (UMS) has been breeding, producing and marketing premium quality Australian seed, both nationally and internationally. Since 1993 it has steadily grown into a vertically integrated, national business. UMS has significant R&D facilities, largely breeding and producing its own seed, and offers a full range of seed cleaning, mixing, coating, bagging and logistics services.

### **Sow on time**

A national wholesaler, UMS delivers seed daily to major centres and forwards seed to regional rural retailers from several warehouses. Our customer service team is centrally located in Albury, NSW and we get our seed on the road towards your farm as fast as possible.

### **Sow much knowledge**

The UMS sales team's extensive industry and agronomic knowledge is freely available to help you select the right seed from our premium product range. We're pleased to be an integral part of your strategic pasture management team and so help you get the best outcome and return on investment.

### **Sow much better**

You'll find detailed product information sheets on our website and feel free to contact us to discuss your needs in seeds. UMS regional contact details are on the back cover of this Guide and you can find out more about UMS on our website and social media channels.

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# Ryegrass maturity

## Why do ryegrass maturity dates matter?

This chart shows the expected heading dates of UMS proprietary ryegrass varieties from early to very late maturity.

The term 'heading date' also refers to the relative maturity of a variety and indicates the approximate time at which the grass becomes reproductive and sends up flowering tillers.

**Earlier maturing varieties** generally have higher potential for late winter growth and a more pronounced spike in spring growth. They tend to suit the drier areas where ryegrass is grown.

**Later maturing varieties** generally offer less winter growth but have a longer spring growth period and so extend pasture quality into early summer. They also tend to suit higher rainfall (or irrigation) areas.

Heading dates can vary due to location, climate and grazing techniques. However, they are a helpful indicator to determine the best fit for your fodder requirements (i.e. late winter, spring or early summer) and it can be beneficial to have a range of heading dates on farm.

You can achieve peak production by selecting the correct variety coupled with proper sowing and grazing management.

Ask your UMS Area Manager for more details.

### Acronyms used in this Guide

ME: Metabolisable Energy

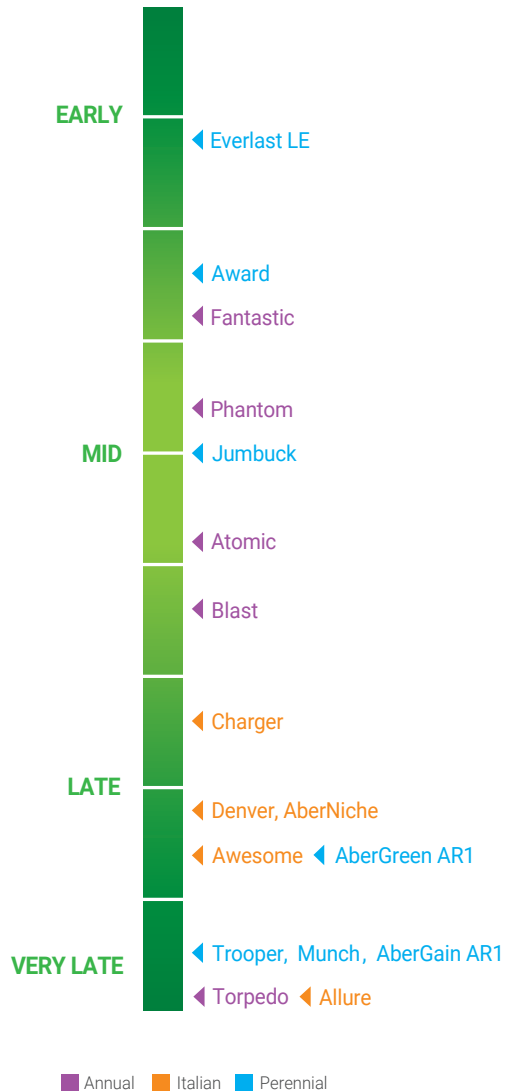
DM: Dry Matter

LE: Low Endophyte

GT: Grazing Tolerant

WSC: Water Soluble Carbohydrate

## Heading Date





# Torpedo<sup>LM</sup>

## ANNUAL RYEGRASS

Torpedo is the most recent tetraploid annual ryegrass to be released from the Upper Murray Seeds' Plant Breeding program. Torpedo is a very late maturing variety that sets a new standard in overall pasture production for annual ryegrasses. Impressive winter production combined with the benefits of a very late maturity makes Torpedo the ultimate choice for a season long high performance pasture.

### Key Features

- Very fast to establish with excellent winter growth
- Suitable for both grazing and hay and silage production
- Exceptional dry matter production
- Maintains quality and performs well into the season

### Plant Characteristics

- Broadleaf tetraploid
- Very vigorous seedling

### Maturity

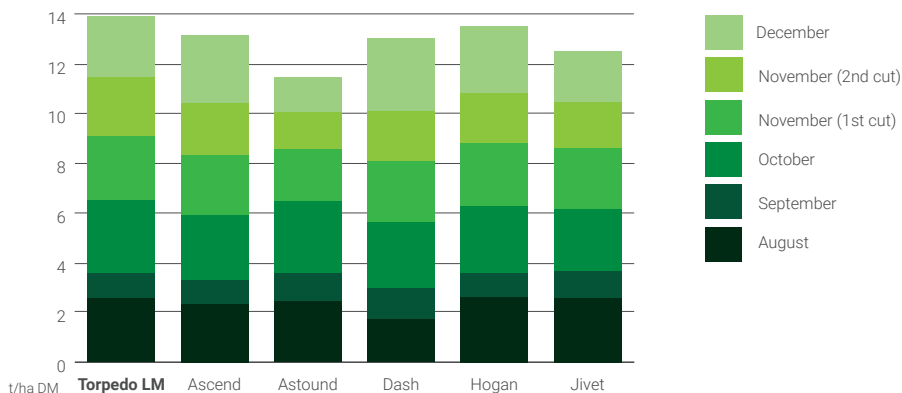
Torpedo is a very late-maturing variety bred to produce high levels of DM late into the season.

### Where can I grow it?

- Medium to high rainfall zones
- Suitable for irrigation



Sowing Rate: 25-30 kg/ha  
Blend Rate: 5-15 kg/ha



Annual Ryegrass, Replicated Dry Matter Trial

Cressy Research Station, TAS, 2020



Atomic is exceptionally fast out of the ground and has prolific winter growth. A mid-maturing, annual tetraploid, Atomic produces excellent hay and silage and is a variety you can trust and rely on every time you sow it.

#### Key Features

- Excellent winter production
- Extremely rapid growth
- Ideal for both hay and silage production
- Highly palatable and nutritious
- Strong vigorous seedling

#### Plant Characteristics

- Broadleaf tetraploid
- High tiller count
- Wide leaves and dense tillers

#### Maturity

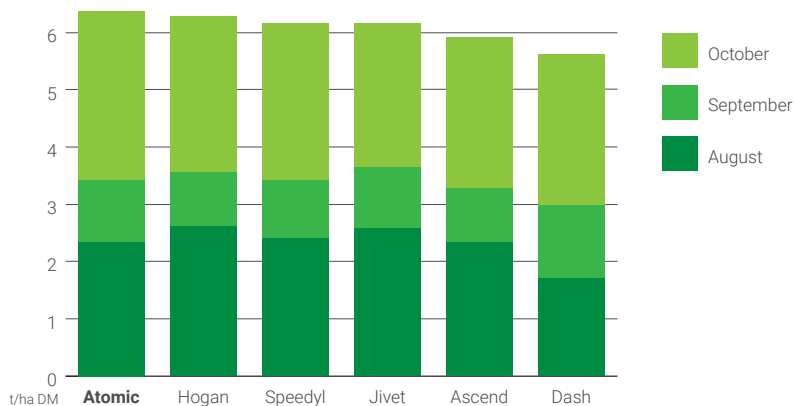
Atomic is mid-flowering variety.  
Days to flowering relative to Nui (0) = +4.

#### Where can I grow it?

- Medium to high rainfall zones
- Suitable for irrigation



Sowing Rate: 25-30 kg/ha  
Blend Rate: 5-15 kg/ha



Annual Ryegrass, Replicated Dry Matter Trial

Cressy Research Station, TAS, 2020



Fantastic is a dynamic, annual diploid ryegrass specifically bred for early winter feed and is ideal to oversow rundown pastures.

### Key Features

- Very fast to first grazing
- Produces excellent quality silage and hay
- Very high winter growth rate
- Outstanding DM yields

### Plant Characteristics

- Densely tillered diploid
- Characterised by fine leaves

### Maturity

Fantastic is an early-flowering variety designed specifically for early winter feed.

Days to flowering relative to Nui (0) = -6

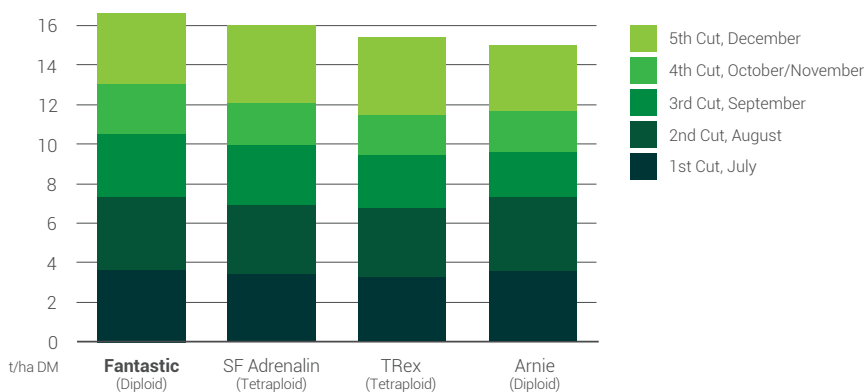
### Where can I grow it?

- Medium to high rainfall zones
- Suitable for irrigation



Sowing Rate: 20-25 kg/ha

Blend Rate: 5-15 kg/ha



Annual Ryegrass, Replicated Dry Matter Trial

Tooma Research Farm, NSW, 2017





Blast is bred for the Australian cattle and sheep market. It is a mid-maturing, highly productive and extremely hardy tetraploid annual ryegrass.

#### Key Features

- Provides abundant winter/spring feed
- High quality and very palatable feed
- Excellent choice to oversow run-down pastures
- Ideally suited to hay and silage production

#### Plant Characteristics

- Broadleaf tetraploid
- High tiller count
- Excellent leaf-to-stem ratio, ie very leafy

#### Maturity

Blast is a mid-flowering variety designed to produce DM later into the season than Tetila-type varieties. Days to flowering relative to Nui (0) = +7

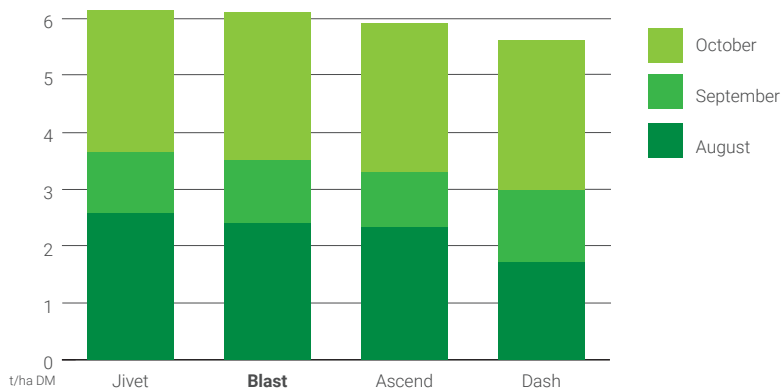
#### Where can I grow it?

- Medium to high rainfall zones
- Suitable for irrigation or dryland



Sowing Rate: 25-30 kg/ha

Blend Rate: 5-15 kg/ha



Annual Ryegrass, Replicated Dry Matter Trial

Cressy Research Station, TAS, 2020



Phantom is an annual tetraploid ryegrass selected for maximum DM production during winter and spring.

### Key Features

- Highly digestible and very palatable
- Ideally suited to hay and silage production
- Excellent choice for direct seeding new pastures
- Rejuvenates older, established pastures

### Plant Characteristics

- Tetraploid annual type
- Very vigorous seedlings
- A perfect substitute for traditional winter forage crops such as oats

### Maturity

Phantom is an early-maturing plant designed to produce good quality feed late into the spring. Excellent winter growth pattern. Days to flowering relative to Nui (0) = -2

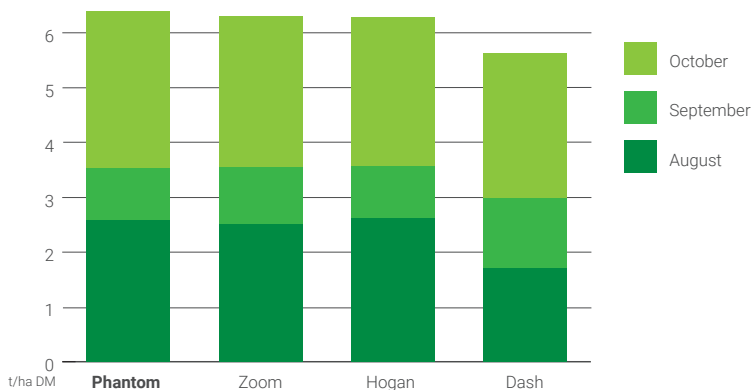
### Where can I grow it?

- High rainfall and irrigation
- Highly adaptable across a diverse range of environments



Sowing Rate: 25-30 kg/ha

Blend Rate: 5-15 kg/ha



Annual Ryegrass, Replicated Dry Matter Trial

Cressy Research Station, TAS, 2020



Allure is a late-maturing, true Italian ryegrass that displays rapid establishment and will persist for 2-3 seasons under favourable conditions. Allure is a game-changing variety in the diploid Italian market, with its outstanding performance and impressive overall dry matter production.

#### Key Features

- High yielding and late maturing ryegrass
- Excellent winter and early spring production
- Very quick to establish
- Produces high quality hay and silage

#### Plant Characteristics

- Diploid Italian-type plant
- Will persist into it's second year under favourable conditions
- High levels of DM production

#### Maturity

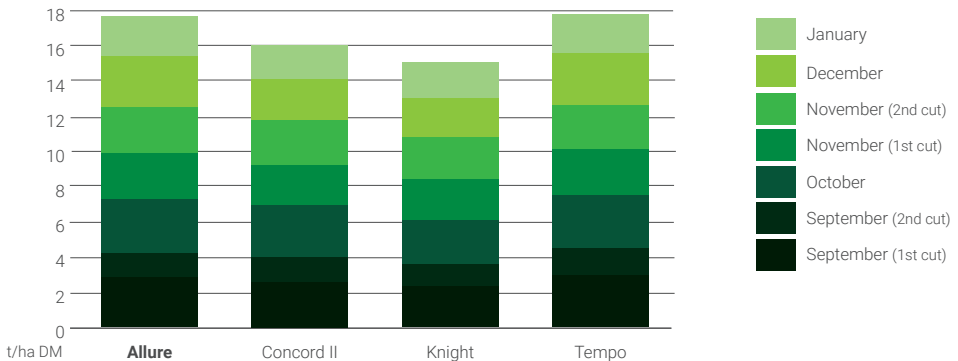
Allure is a late-maturing plant designed to produce DM well into summer if supplied with summer rainfall or irrigation.

#### Where can I grow it?

- Medium to high rainfall zones
- Suitable for irrigation



Sowing Rate: 20-25 kg/ha  
Blend Rate: 5-15 kg/ha



Italian Ryegrass, Replicated Dry Matter Trial

Cressy Research Station, TAS, 2020



Awesome is a true Italian ryegrass designed for high yield and an extended season into summer. Awesome is easy to establish and recovers well after grazing.

### Key Features

- Maintains quality late into season
- Produces high quality hay and silage
- Exceptionally rapid regrowth
- Ideal for oversowing

### Plant Characteristics

- Diploid biennial type
- Italian parentage
- Densely tillered
- Will persist for 2 seasons in favourable conditions

### Maturity

Awesome is a late-maturing plant designed to produce DM well into summer, if supplied with summer rainfall or irrigation.

Days to flowering relative to Nui (0) = +18

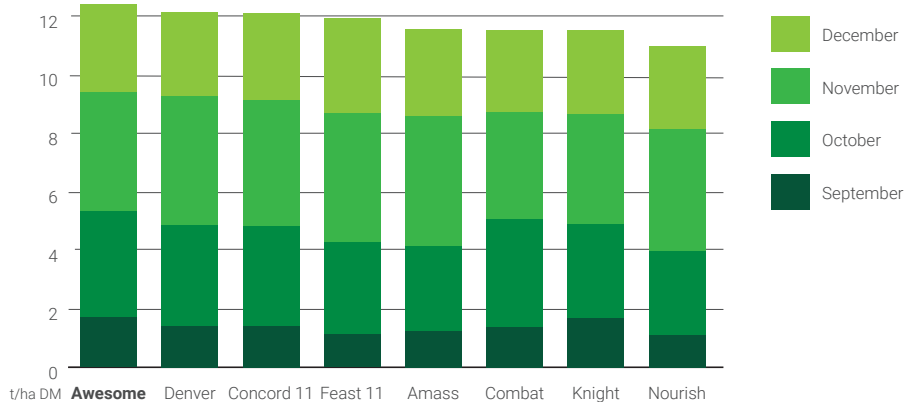
### Where can I grow it?

- Medium to high rainfall zones
- Suitable for irrigation



Sowing Rate: 20-25 kg/ha

Blend Rate: 5-15 kg/ha



Italian Ryegrass, Replicated Dry Matter Trial

Cressy Research Station, TAS, 2019



Charger is a diploid Italian ryegrass which provides excellent autumn/winter feed in the second and third years under favourable conditions.

#### Key Features

- Good disease resistance
- Vigorous seedlings which establish and grow rapidly
- Suits spray-drilling or oversowing
- Responds very well to irrigation and rainfall
- Recommended for beef fattening, prime lamb production and high-input cell or rotational grazing

#### Plant Characteristics

- Diploid Italian type
- Will persist for up to three seasons in favourable conditions
- Continuous DM production especially in the winter
- High levels of palatability and ME

#### Maturity

Charger is a late-flowering variety which can extend the grazing season into late summer. It benefits from late season rains or irrigation.

Days to flowering relative to Nui (0) = +12

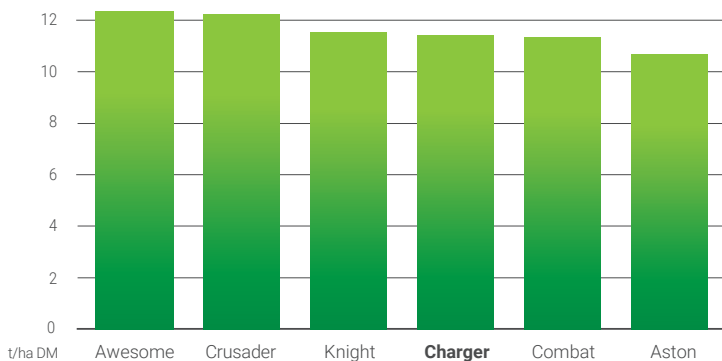
#### Where can I grow it?

- Medium to high rainfall zones
- Suitable for irrigation



Sowing Rate: 20-25 kg/ha

Blend Rate: 5-15 kg/ha



Italian Ryegrass, Replicated Dry Matter Trial

Tooma Research Farm, NSW, 2014





Denver is a long-season, tetraploid Italian ryegrass selected for its seedling vigour and substantial winter growth.

### Key Features

- Establishes rapidly
- Excellent palatability
- Dynamic recovery from grazing and cutting
- Extremely disease resistant

### Plant Characteristics

- Tetraploid Italian-type plant
- Designed to persist for 2-3 years under suitable conditions

### Maturity

Denver is a late-flowering plant designed to produce good quality feed late into the spring.  
Days to flowering relative to Nui (0) = +16

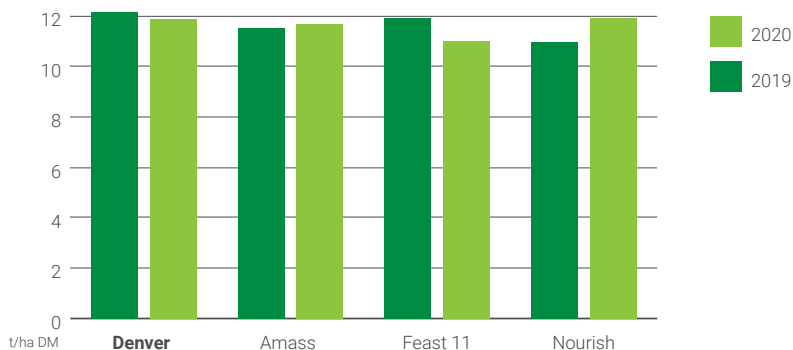
### Where can I grow it?

- High rainfall and irrigation areas
- A reliable spring is essential to maximise production potential due to Denver's late-flowering habit



Sowing Rate: 25-30 kg/ha

Blend Rate: 5-15 kg/ha



Italian Ryegrass, Replicated Dry Matter Trial

Cressy Research Station, TAS

AberNiche is an interspecies cross (Italian-type ryegrass x meadow fescue) ie a hybrid grass, adapted to a variety of stress conditions, particularly drought.

### Key Features

- Significantly improved water use efficiency proven in simulated drought trials
- Can be combined in short term mixes with Italian or hybrid ryegrass
- For longer-term mixes include cocksfoot alongside perennial or hybrid ryegrasses, plus white clover

### Plant Characteristics

- Densely tillered and well suited to bulk hay or silage
- Rapid establishment
- Winter hardy
- Dense, deep root system to help in dry seasons

### Maturity

AberNiche is a late-maturing variety designed to produce DM later into the season.  
Days to flowering relative to Nui (0) = +16

### Where can I grow it?

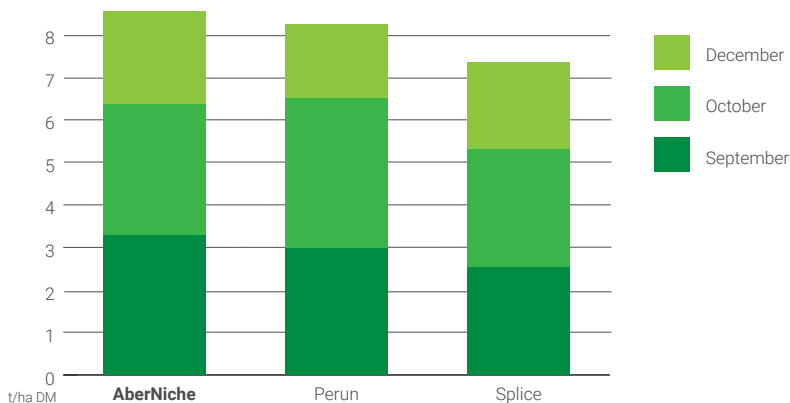
- Medium to high rainfall zones
- Suitable for irrigation or dryland but not hot, dry climates
- Cold and frost tolerant



Sowing Rate: 20-25 kg/ha  
Blend Rate: 10-15 kg/ha



See more at [www.germinal.co.nz](http://www.germinal.co.nz)



Festulium, Replicated Dry Matter Trial

Cressy Research Station, TAS, 2020

Everlast LE was bred for the Australian sheep and cattle market and is an early maturing but highly productive and extremely hardy ryegrass.

## Key Features

- Extremely vigorous, provides abundant winter and early spring feed
- Extremely persistent and hardy
- Reliable dry matter production
- Improved tolerance to hot, dry Australian summers
- Low endophyte levels

## Plant Characteristics

- Highly palatable, diploid perennial ryegrass
- Semi-erect growth habit and very deep rooted
- Hardy, frost tolerant and withstands dry conditions
- Persists 7-10 years under suitable conditions
- Summer dormant to enhance long-term persistence

## Maturity

Everlast is an early-flowering variety which is slightly later than traditional Victorian types.

Days to flowering relative to Nui (0) = -14

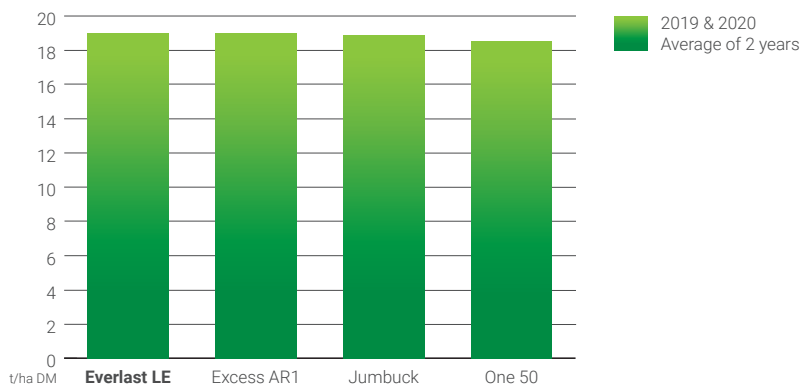
## Where can I grow it?

- Ideally suited to marginal perennial ryegrass areas and cooler climates
- Medium to high rainfall zones



Sowing Rate: 20-25 kg/ha

Blend Rate: 5-15 kg/ha



Perennial Ryegrass, Replicated Dry Matter Trial

Cressy Research Station, TAS, 2019 & 2020



Award is an early maturing but very productive ryegrass with the persistence of traditional Victorian germplasm. It was bred specifically for the Australian cattle and sheep market.

#### **Key Features**

- Extremely persistent
- Reliable dry matter production
- Improved tolerance to hot dry summers

#### **Plant Characteristics**

- Diploid perennial ryegrass
- Designed to persist onwards of 7-10 years under suitable conditions

#### **Maturity**

Award is an early-flowering variety which is slightly later than traditional Victorian types.  
Days to flowering relative to Nui (0) = -8

#### **Where can I grow it?**

- Medium to high rainfall zones



Sowing Rate: 20-25 kg/ha

Blend Rate: 5-15 kg/ha





Jumbuck is a mid-season, diploid perennial ryegrass bred for high input grazing systems.

### Key Features

- Rapid and vigorous establishment
- Maintains grazing value into summer
- Produces impressive liveweight gains
- Ideal component for perennial pasture blends

### Plant Characteristics

- Diploid perennial ryegrass
- Designed to persist onwards of 5-7 years under suitable conditions

### Maturity

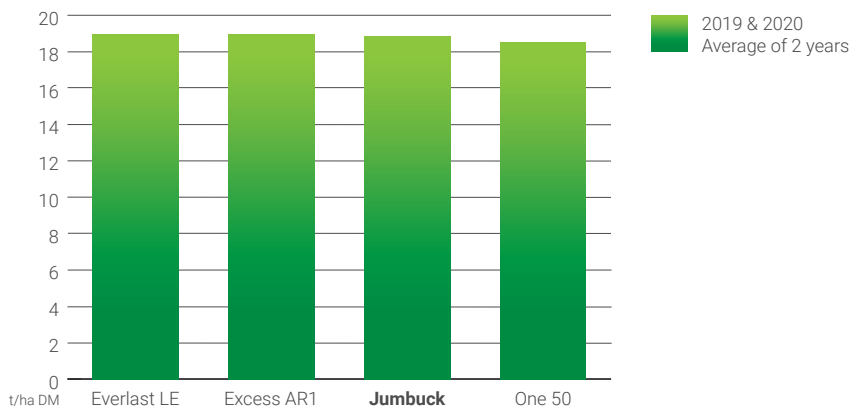
Jumbuck is a mid-season flowering variety designed to run later into the season than traditional diploid perennial types.  
Days to flowering relative to Nui (0) = +0

### Where can I grow it?

- Medium to high rainfall and irrigation areas
- Best suited to regions with a cooler finish and reliable spring rainfall
- High temperatures can constrain summer growth



Sowing Rate: 20-25 kg/ha  
Blend Rate: 5-10 kg/ha



Perennial Ryegrass, Replicated Dry Matter Trial

Cressy Research Station, TAS, 2019 & 2020





Trooper is a very late-season, diploid perennial ryegrass bred for high-input grazing systems.

### Key Features

- Establishes very rapidly
- Beneficial to all types of livestock
- Produces high quality feed throughout the season
- Ideal option for perennial mixes

### Plant Characteristics

- Diploid perennial ryegrass
- Low endophyte type
- Very palatable
- Performs well into the season
- Very persistent
- Very dense tillers

### Maturity

Trooper is a very late-maturing variety designed to produce large amounts of quality feed late into the spring and summer season.

Days to flowering relative to Nui (0) = +23

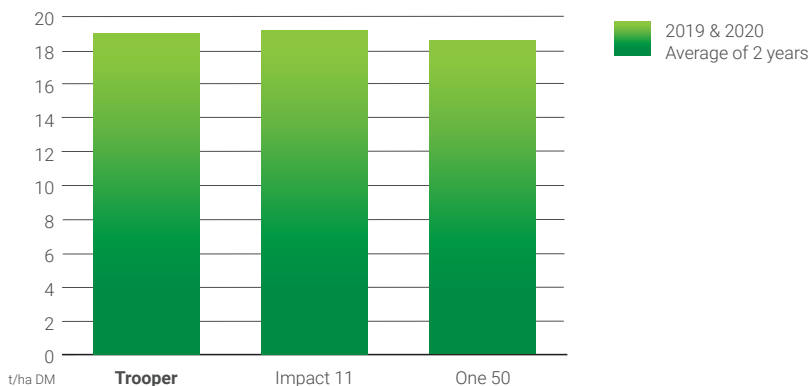
### Where can I grow it?

- Medium to high rainfall zones
- Performs very well under irrigation
- It suits a wide range of fertility levels and soil profiles



Sowing Rate: 20-25 kg/ha

Blend Rate: 10-15 kg/ha



Perennial Ryegrass, Replicated Dry Matter Trial

Cressy Research Station, TAS, 2019 & 2020



Munch is a high yielding, tetraploid perennial ryegrass which is ideal for dairy, beef and sheep systems.

### Key Features

- Combines high levels of metabolisable energy (ME), crude protein (CP) and water soluble carbohydrates (WSC) to create one of the best performing grasses on the market
- Establishes rapidly
- Produces excellent quality hay and silage
- Regrows rapidly after grazing
- Ideal option in pasture mixes

### Plant Characteristics

- Tetraploid perennial ryegrass
- Low endophyte levels
- Very palatable with high tiller density

### Maturity

Munch is a very late-maturing plant designed to produce large amounts of dry matter well into summer (if conditions are suitable).

Days to flowering relative to Nui (0) = +23

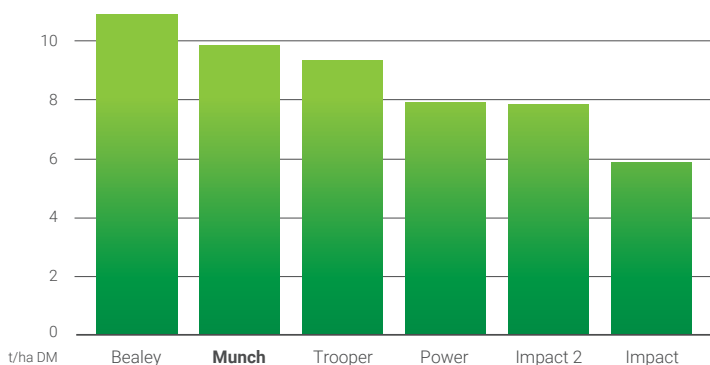
### Where can I grow it?

- Medium to high rainfall zones
- Performs very well under irrigation



Sowing Rate: 25-30 kg/ha

Blend Rate: 15-20 kg/ha



Perennial Ryegrass, Replicated Dry Matter Trial

Tooma Research Farm, NSW, 2015



AberGain AR1 is a tetraploid 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 ryegrasses, due to increased palatability and greater animal preference. AberGain AR1 provides all these benefits, and combined with its densely tillered nature, offers farmers real potential to lift animal production.

### Key Features

- First tetraploid High Sugar Grass released in New Zealand
- Densely tillered for improved grazing tolerance compared with conventional tetraploid ryegrasses

### Plant Characteristics

- Tetraploid Perennial Ryegrass
- Very dense tillers
- AR1 Novel Endophyte

### Maturity

AberGain AR1 is designed to produce large amounts of dry matter well into summer (if conditions are suitable).

- Days to flowering relative to Nui (0) = +24

### Where can I grow it?

- Medium to high rainfall zones
- Performs very well under irrigation



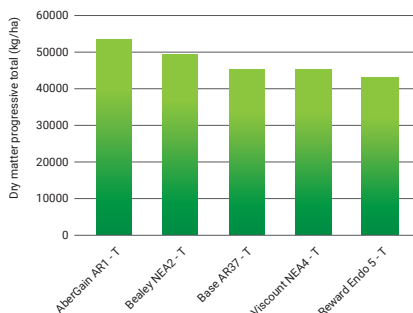
Sowing Rate: 25-30kg/ha  
Blend Rate: 15-20kg/ha



Aber and Aber HSG are registered trademarks of Openfolde Ltd.

### Perennial Ryegrass, Replicated Dry Matter Trial

UMS Research Station, Cressy Tasmania 10/21 - 11/23



AberGreen AR1 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% can improve animal performance by up to 5%. Animals have a higher voluntary intake with high digestibility and can absorb more energy from the feed, meaning animals fed good quality grass will yield more. An increase of 1% in digestibility has been measured to increase grass dry matter intake by 0.2 kg per cow per day. AberGreen AR1 is 5.5% higher in digestibility when compared to a standard ryegrass.

### Key Features

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

### Plant Characteristics

- Diploid perennial ryegrass
- Fine dense tillers
- AR1 Novel Endophyte
- Deep root

### Maturity

AberGreen AR1 is a very late-maturing variety designed to produce large amounts of quality feed late into the spring and summer season.

- Days to flowering relative to Nui (0) = +17

### Where can I grow it?

- Medium to high rainfall zones
- Performs very well under irrigation
- Suits a wide range of fertility levels and soil profiles



Sowing Rate: 20-25kg/ha

Blend Rate: 10-15kg/ha



# **Estancia** TALL FESCUE with ArkShield® Protection

Estancia Tall Fescue produces tons of palatable, nutritious, high-quality forage that leads to healthier, heavier and improved weight gains in livestock. It is powered by ArkShield® Smart Endophyte technology that protects Estancia plants from disease, insects, heat and drought stress, producing a more persistent perennial pasture without negatively affecting animal performance.

## Key Features

- A productive and persistent perennial forage grass
- Exceptionally high yielding
- High tolerance to disease, pests and drought
- Fescue variety with excellent seedling vigour

## Plant Characteristics

- Temperate type
- Deep-rooted true perennial variety

## Activity

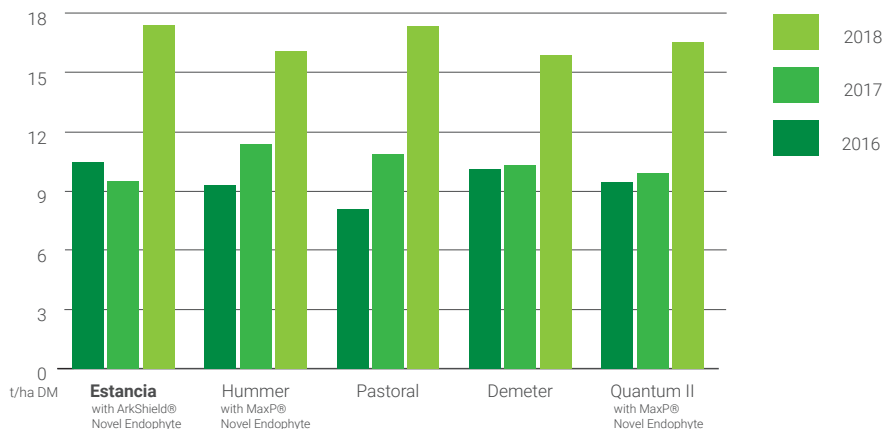
Estancia is a summer-active mid-maturing fescue. Temperate types exhibit spring/summer activity with some slow growth in winter, they do not frost off as easily as cocksfoot and phalaris.

## Where can I grow it?

- Suited to high rainfall zones
- Better heat tolerance than perennial ryegrass
- Ideal for heavy soils



Sowing Rate: 15-25 kg/ha  
Blend Rate: 4-10 kg/ha



Summer Active Fescue, Replicated Dry Matter Trial

Tooma Research Farm, NSW, 2016-2015





Pastoral is a soft-leaf, persistent, summer-active fescue bred to withstand the harsh Australian climate.

### Key Features

- Bred from the most persistent plants of a summer-active fescue trial
- Improved palatability over traditional fescues
- Responds really well to summer rainfall
- Extremely drought tolerant

### Plant Characteristics

- Temperate type
- Perennial tussock-forming grass with deep root system

### Activity

Pastoral is a summer-active, early flowering variety. Temperate types exhibit spring/summer activity with some slow growth in winter, they do not frost off as easily as cocksfoot and phalaris.

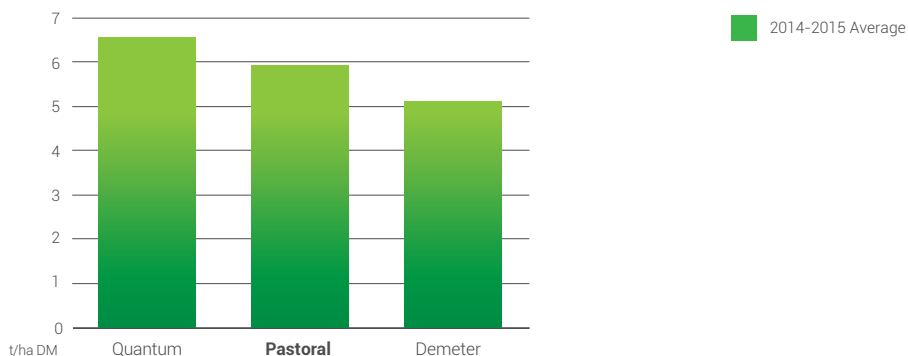
### Where can I grow it?

- Suited to high rainfall zones
- Better heat tolerance than perennial ryegrass
- Ideal for heavy soils



Sowing Rate: 15-25 kg/ha

Blend Rate: 4-10 kg/ha



Summer Active Fescue, Replicated Dry Matter Trial

Tooma Research Farm, NSW, 2014-2015



Charlem is an extremely persistent, densely tillered, Mediterranean-type, winter-active fescue.

### Key Features

- Grows more winter feed and later maturing than traditional fescues
- Very high dry matter production and extremely soft leaf
- Deep-rooted perennial
- Ideal lucerne companion plant
- Alternative to phalaris where persistence is required

### Plant Characteristics

- Mediterranean type
- Perennial tussock-forming grass with deep root system

### Activity

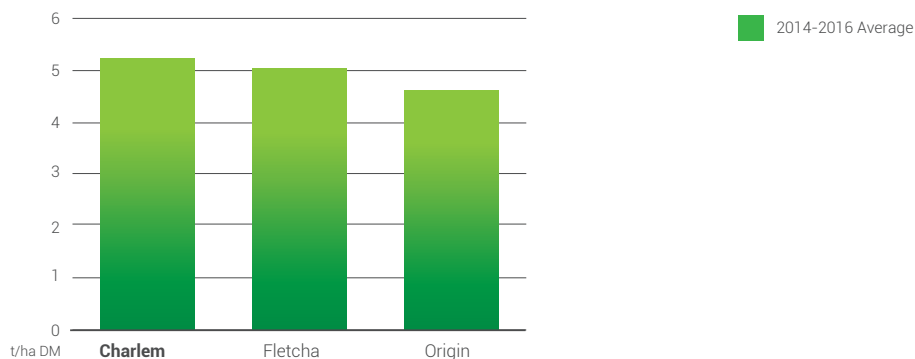
Charlem is a winter-active, mid/late flowering variety. Mediterranean types exhibit winter activity and varying levels of summer dormancy and consequently have greater tolerance to summer drought.

### Where can I grow it?

- Excellent drought tolerance
- Better heat tolerance than perennial ryegrass



Sowing Rate: 15-25 kg/ha  
Blend Rate: 4-10 kg/ha



Winter Active Fescue, Replicated Dry Matter Trial

Tooma Research Farm, NSW, 2014-2016



Drover is an acid tolerant, Australian-bred cocksfoot which sets the benchmark for Mediterranean-type cocksfoot.

### Key Features

- Earlier maturing than traditional cocksfoots
- Excellent palatability
- High dry matter production
- Persistent and hardy perennial grass
- Increased winter activity

### Plant Characteristics

- Semi-erect growth habit
- Perennial tussock-forming grass
- Soft leaf, very palatable compared to Porto

### Activity

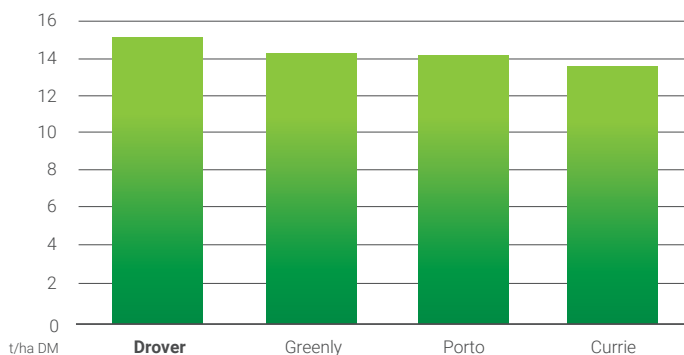
Drover has similar summer activity to Porto.

### Where can I grow it?

- Rotational grazing systems with a minimum of 450mm annual rainfall
- Sensitive to waterlogging



Sowing Rate: 2-4 kg/ha  
Blend Rate: 1-3 kg/ha



Cocksfoot, Replicated Dry Matter Trial

Tooma Research Farm, NSW, 2016

Evolution is a highly grazing tolerant phalaris featuring a full growing crown and displays exceptional levels of winter growth combined with a large leaf size. Evolution is an ideal component of a perennial blend, following years of selection based on persistence and palatability.

### Key Features

- More winter active than traditional phalaris cultivars
- Highly grazing tolerant
- Fast to establish
- Once established Evolution's deep and extensive root system improves its ability to handle periods of drought
- Tolerates acid soils well compared to traditional cultivars

### Plant Characteristics

- Strong full growing crown
- Large leaf size

### Activity

- Evolution is a winter active variety.

### Where can I grow it?

- Tolerates a wide range of conditions and climates
- Very persistent

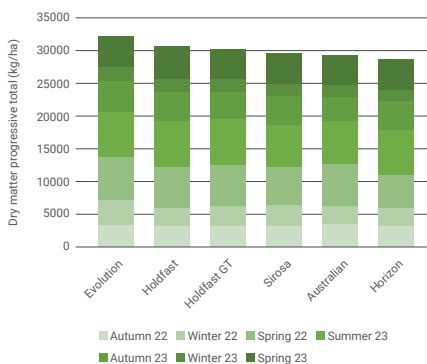


Sowing Rate: 4-6 kg/ha  
Blend Rate: 1-3 kg/ha



### Phalaris dry-matter trial

UMS Research Station Cressy Tasmania data from 12/21 to 10/23



### Phalaris dry-matter trial

UMS Research Station Cressy Tasmania data winter growth





Grazier is a truly persistent and productive perennial grass that can really handle stock grazing pressure once established. It is an Australian-type phalaris bred for improved leaf quality and yield.

### Key Features

- Improves ground cover due to its low, wide, dense crown and prostrate, spreading growth habit
- Once established, Grazier's deep and extensive root system improves its ability to handle periods of drought
- For optimum results, apply strategic grazing management to phalaris

### Plant Characteristics

- Tussock-forming grass which can recruit new seedlings

### Activity

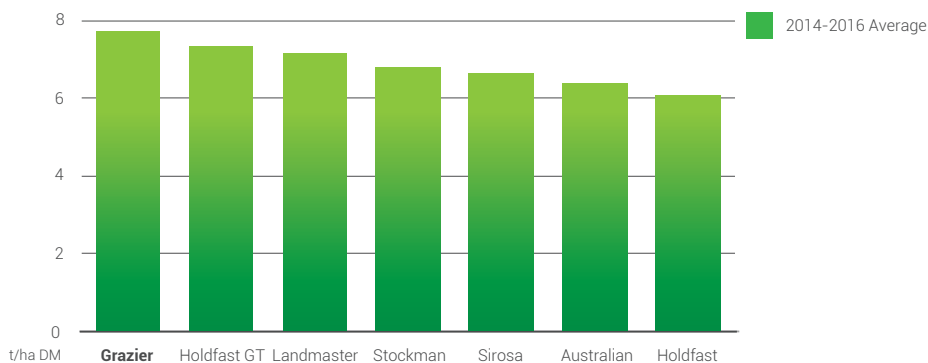
Grazier is a semi winter-active variety which provides year-round feed but with typically abundant spring growth.

### Where can I grow it?

- Tolerates a wide range of conditions and climates
- Very persistent
- Highly adaptable to most temperate zones



Sowing Rate: 4-6 kg/ha  
Blend Rate: 1-3 kg/ha



Phalaris, Replicated Dry Matter Trial

Tooma Research Farm, NSW, 2014-2016



Stockman is the ultimate phalaris bred by crossing the traditional Australian cultivar with Holdfast phalaris.

### Key Features

- Ideal base for perennial pastures
- More winter active than traditional types
- Improved dry matter production
- Excellent performance in poorly drained and waterlogged soils
- Tolerates acid soils well compared to traditional cultivars

### Plant Characteristics

- Semi-erect type
- Tussock forming grass which can recruit new seedlings

### Activity

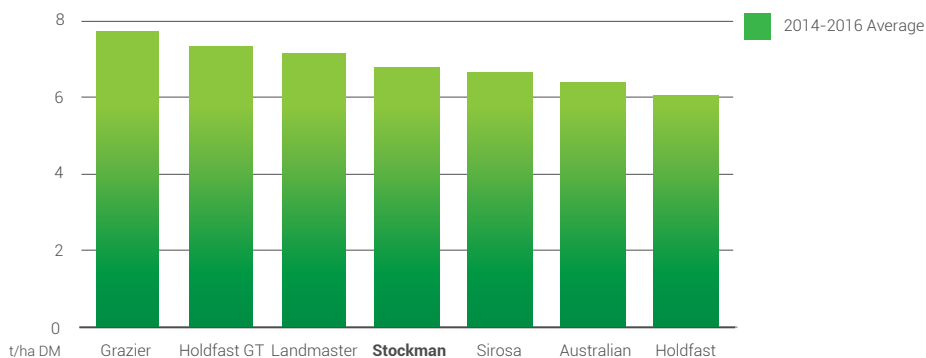
Stockman is a winter-active variety.

### Where can I grow it?

- Tolerates a wide range of conditions and climates
- Very persistent



Sowing Rate: 4-6 kg/ha  
Blend Rate: 1-3 kg/ha



Phalaris, Replicated Dry Matter Trial

Tooma Research Farm, NSW, 2014-2016





Nandu is a very productive, South American-bred grass with strong autumn and winter growth.

#### Key Features

- Establishes quickly and regrows rapidly after grazing
- Tolerant of set stocking and horses
- Resistant to Argentine stem weevil
- High levels of digestibility and ME

#### Plant Characteristics

- A prolific seeder that recruits new plants strongly
- Densely tufted with relatively fine leaves, and dense fine tillers
- Excellent early vigour and a prostrate growth habit

#### Activity

Nandu is a valuable winter feed producer which provides bulk feed throughout the season.

#### Where can I grow it?

- Grows best in areas of more than 600mm annual rainfall
- Some summer rainfall will significantly improve persistence



Sowing Rate: 25 kg/ha

Blend Rate: 5-10 kg/ha



# SilverLand GT 5

LUCERNE

SilverLand GT 5 is an extremely persistent lucerne that can withstand significant grazing pressure. Due to its high levels of disease and pest resistance it's a long-term crop option for any lucerne producer.

## Key Features

- Extremely persistent because of its broad disease resistance
- Ideal for areas with good winter rainfall
- Predominately used for summer forage
- Suitable for set-stocking
- Tolerates high levels of salinity, up to 10,000ppm

## Plant Characteristics

- A well managed stand is likely to persist 10+ years
- Erect, leafy growth habit with a low, broad crown
- Highly resistant to spotted alfalfa and blue-green aphids
- Rapid regrowth after grazing or cutting
- Highly persistent in both dryland and irrigation conditions

## Where can I grow it?

- Bred to suit all Australian lucerne growing areas
- Tolerates frost and cold winters
- Persists in saline soils and retains its high quality and palatability



**Sowing Rate:** 6-15kg/ha (dryland)  
15-30kg/ha (irrigation) alone or  
1-4kg/ha when a component of a blend

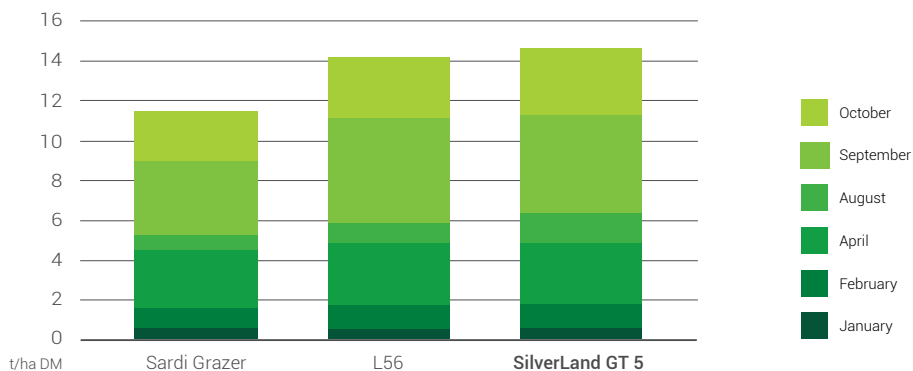


## WINTER ACTIVITY 5 SEMI WINTER-ACTIVE

*For more detailed information ask for our  
Lucerne Guide or download from our website.*



SilverLand GT 5 is protected by patent



Lucerne Dry Matter Trial

Kingaroy QLD, 2019-2020

# Silverosa GT 7

LUCERNE

Silverosa GT 7 is the benchmark for multi-purpose, grazing tolerant lucerne. It has inbuilt disease and pest resistance, produces premium quality forage and is salt tolerant.

### Key Features

- High-yielding and extremely persistent lucerne suited to both intensive grazing and fodder production
- Superior stem:leaf ratio
- Rapid regrowth after grazing and cutting
- Significantly improved leaf retention when hay making
- Tolerates high levels of salinity; up to 10,000ppm

### Plant Characteristics

- Erect, leafy growth habit
- Very high leaf:stem ratio in mature stands
- Fine leafy stems are very palatable in hay and forage
- Has broad crowns with dense stem regrowth
- High levels of ME and CP
- Highly resistant to aphids

### Where can I grow it?

- Bred to suit all Australian lucerne growing areas
- Tolerates frost and cold winters
- Persists in saline soils and retains its high quality and palatability



Sowing Rate: 6-15kg/ha (dryland)  
15-30kg/ha (irrigation) alone or  
1-4kg/ha when a component of a blend



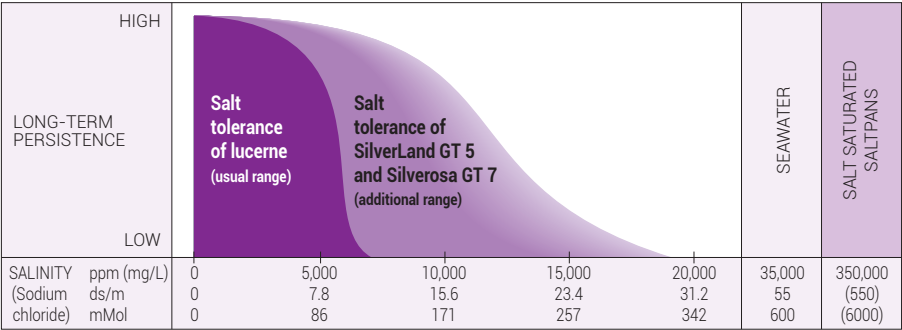
### WINTER ACTIVITY 7 WINTER ACTIVE

For more detailed information ask for our  
Lucerne Guide or download from our website.

### Salt tolerance of SilverLand GT 5 and Silverosa GT 7



Silverosa GT 7 is protected by patent



Source Dr ID Kaehne, Patent application

# Silverado 9

LUCERNE

Silverado 9 is a premium quality lucerne, with built-in, broad-spectrum disease and pest resistance that enhance its forage quality and performance.

## Key Features

- Ideal for mixed grazing and hay production enterprises
- Highly persistent in dryland and irrigation
- Superior cold and heat tolerance
- Rapid regrowth after grazing and cutting
- Well suited to hay production systems
- Significantly improved leaf retention when hay making

## Plant Characteristics

- Erect growth habit
- Excellent mature leaf:stem ratio
- Highly resistant to aphids

## Where can I grow it?

- Bred to suit all Australian lucerne-growing areas from the subtropics to dryland
- Ideally suited to irrigation
- Tolerates frost and cold winters



Sowing Rate: 6-15kg/ha (dryland)  
15-30kg/ha (irrigation) alone or  
1-4kg/ha when a component of a blend



## WINTER ACTIVITY 9 HIGHLY WINTER-ACTIVE

*For more detailed information ask for our  
Lucerne Guide or download from our website.*

### Disease resistance (common to all four varieties)

## SilverLand GT 5

LUCERNE

## Silverosa GT 7

LUCERNE

## Silverado 9

LUCERNE

## SilverSky 11

LUCERNE

### Leaf and Stem Diseases

Stemphylium Leaf Spot	● ●	Resistant
Pepperspot (Leptosphaerulina)	● ●	Resistant
Rust	● ● ●	Highly Resistant
Downy Mildew	● ● ●	Highly Resistant
Phoma (Spring Blackstem)	● ●	Resistant
Common Leafspot	● ●	Resistant
Lucerne Yellows Disease	● ● ●	Highly Resistant

### Root and Crown Diseases

Phytophthora Root Rot	● ● ●	Highly Resistant
Anthraxnose	● ● ●	Highly Resistant
Stagonospora Crown Rot	● ● ●	Highly Resistant
Fusarium Crown Rot	● ● ●	Highly Resistant
Rhizoctonia Crown Rot	●	Moderately Resistant

Source Dr ID Kaehne

# SilverSky 11

LUCERNE

SilverSky 11 is a new lucerne variety that sets the bar very high in terms of dry matter production. It's a vigorous plant that performs extremely well in both winter and summer and is highly resistant to disease and pests. SilverSky 11 suits a wide range of forage systems.

## Key Features

- High yielding, premium quality lucerne suited to fodder production
- Very persistent and extremely winter active
- Rapid regrowth in all seasons, including winter
- Australian-bred to suit most lucerne-growing areas

## Plant Characteristics

- Erect, dense and leafy growth habit
- Excellent leaf/stem ratio
- Persists as well as less winter-active varieties, in a well managed stand expect 5+ years
- Highly resistant to spotted alfalfa and blue-green aphids

## Where can I grow it?

- Bred to suit all Australian lucerne-growing areas from the subtropics to dryland
- Ideally suited to irrigation
- Tolerates frost and cold winters

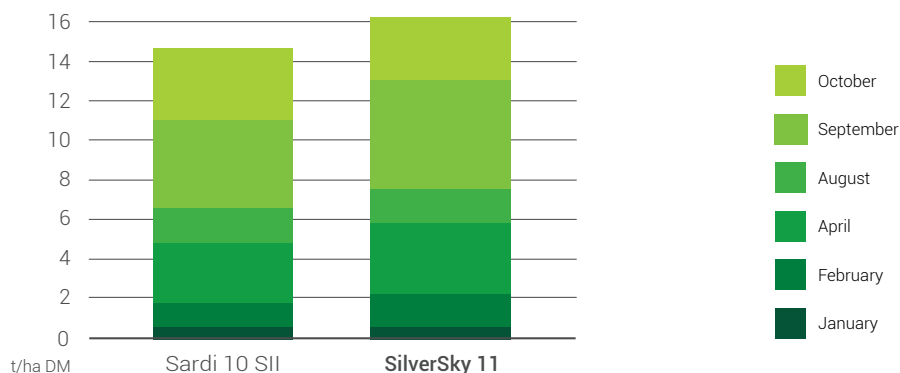


Sowing Rate: 6-15kg/ha (dryland)  
15-30kg/ha (irrigation) alone or  
1-4kg/ha when a component of a blend



**WINTER ACTIVITY 11**  
**EXTREMELY WINTER-ACTIVE**

*For more detailed information ask for our  
Lucerne Guide or download from our website.*



Lucerne Dry Matter Trial

Kingaroy QLD, 2019-2020

# AberLasting<sup>®</sup>

CAUCASIAN WHITE CLOVER X

AberLasting is a Caucasian/white clover cross providing the nutritive and N-fixing benefits of white clover, as well as drought-tolerant rhizomatous root characteristics.

## Key Features

- High levels of stolon density and tolerance to set stocking
- Bred to provide a more drought-tolerant and persistent perennial legume
- Ideal for long term grazing

## Plant Characteristics

- Has all the characteristics of a small-leaf white clover coupled with the drought tolerance of Caucasian clover
- Stolons and rhizomes from the Caucasian clover
- Dense fibrous root system for dry tolerance

## Where can I grow it?

- Suitable for use in all grazing systems including permanent pasture with limited water
- Proven to be drought tolerant and persistent, even in clover root weevil areas



Sowing Rate: 3-5 kg/ha  
Blend Rate: 1-3 kg/ha



**A REAL BREAKTHROUGH**  
**THE FIRST SUPER CLOVER IS HERE!**

See more at [www.geminal.co.nz](http://www.geminal.co.nz)

## Typical quality characteristics of white clover and perennial ryegrass

	White Clover	Perennial Ryegrass
Digestibility (D-value %)	75 - 82	65 - 75
Crude protein (%)	27	17
Dry matter intake by sheep (kg/day)	1.9	1.6
Calcium content (%)	1.6	0.6
Magnesium content (%)	0.18	0.16
Phosphorus (%)	0.6	0.3
Copper (parts per million)	10.0	6.5
Selenium (parts per 100 million)	0.6	0.2



# AberDance<sup>®</sup>

WHITE CLOVER

AberDance is a medium-leaf white clover which provides flexibility in a variety of grazing management systems and is best suited to sheep or cattle grazing.

## Key Features

- Can be used in either medium or long-term pastures
- High-yielding and persistent in a range of systems
- Showed consistently high yields over 8 years in long-term trials
- Bred for stress tolerance, grazing tolerance, pest and disease resistance
- Flexibility, ie suitable for hard grazing and cutting

## Plant Characteristics

- Very winter hardy with outstanding cool season activity
- High stolon density
- Medium leaf size

## Where can I grow it?

- Best suited to medium to high rainfall zones or irrigation
- Responds well to spring and summer moisture
- Will grow in a wide range of soil and fertility conditions

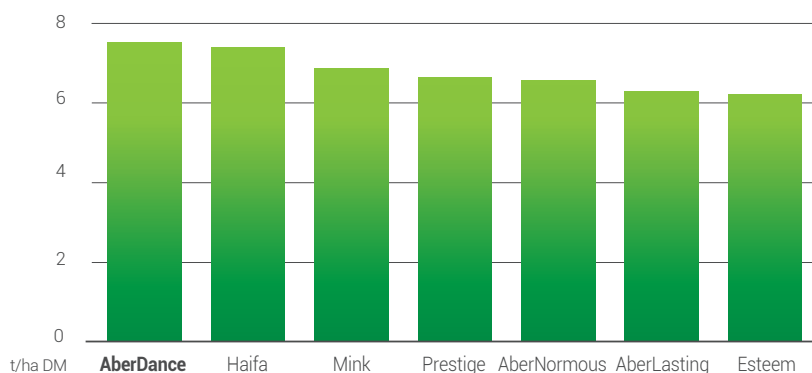


Sowing Rate: 3-5 kg/ha  
Blend Rate: 1-3 kg/ha



**ABER WHITE CLOVERS  
MAXIMISE SOIL FERTILITY  
AND PASTURE FEED VALUE**

See more at [www.germinal.co.nz](http://www.germinal.co.nz)



White Clover, Replicated Dry Matter Trial

Tooma Research Farm, NSW, 2013-2014

# AberNormous<sup>®</sup>

WHITE CLOVER

AberNormous is a large-leaf white clover suitable for rotational dairy/cattle grazing and superior production silage pastures.

## Key Features

- Combined with AberDance, provides superior yielding pasture for high-fertility lamb fattening systems
- Retains excellent digestibility throughout the season
- Improved stress tolerance, grazing tolerance, pest and disease resistance

## Plant Characteristics

- Larger leaf size and higher stolon density than other similar clovers
- Dense stolon growth for greater persistence

## Where can I grow it?

- Best suited to medium to high rainfall zones or irrigation
- Responds well to spring and summer moisture
- Will grow in a wide range of soil and fertility conditions



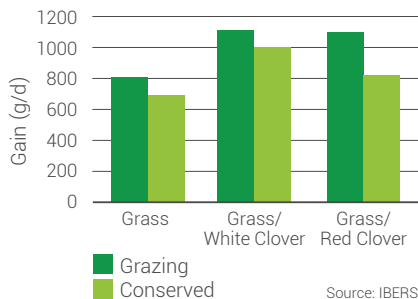
Sowing Rate: 3-5 kg/ha

Blend Rate: 1-3 kg/ha

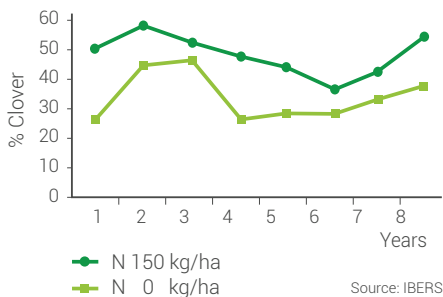


See more at [www.geminal.co.nz](http://www.geminal.co.nz)

## Liveweight gains on clover (beef cattle)



## Evidence of persistence of modern white clover varieties





TurboPlus is a Persian clover specially bred to meet the need for a disease resistant, frost tolerant, high performance, multicut/multigraze variety.

#### **Key Features**

- High dry matter yields
- Tolerant to set stocking
- Longer production season than traditional forage Persian clovers
- Ideal in a mix for quality hay and silage making

#### **Plant Characteristics**

- Annual legume with a tall and erect growth habit
- Grows quickly and displays large leaflets
- Soft seeded

#### **Activity**

TurboPlus is winter active with a late flowering date.

#### **Where can I grow it?**

- Specifically adapted to suit a wide range of climates from the subtropics to cool temperate areas
- Excellent frost and waterlogging tolerance
- Ideal for irrigated areas



Sowing Rate: 4-10 kg/ha Dryland, 10-15 kg/ha Irrigation  
Blend Rate: 2-4 kg/ha



# AberClaret

## RED CLOVER

AberClaret is a very productive, semi-upright Red Clover with excellent spring and summer growth and provides high yields of protein-rich forage.

### Key Features

- Excellent for hay or silage production
- Yields well under grazing and conservation
- High in protein, ideal for fattening lambs
- Great as a break crop that improves soil structure and fertility

### Plant Characteristics

- Lower oestrogen levels
- Semi-upright growth habit
- Large leaf

### Activity

- AberClaret grows best in spring and summer, with good levels of winter production.

### Where can I grow it?

- Suited to high rainfall zones
- Some summer rainfall will significantly improve persistence
- Performs very well in heavy soils



Sowing Rate: 8-12 kg/ha  
Blend Rate: 4-6 kg/ha



**Germinal** **Aber**  
Sowing future seeds.

Aber and Aber HSG are registered trademarks of Openfolde Ltd.



Harpoon is a new awnless forage barley bred to suit grazing and hay production enterprises around Australia. Harpoon produces significant quantities of dry matter (DM) and is later maturing than other forage barley varieties.

### Key Features

- Extremely palatable
- High-yielding with exceptional winter production
- Performs well under stress
- Versatile: suited to both grazing and hay production

### Plant Characteristics

- Awnless, fine-stemmed white-seeded barley
- Very evenly maturing 6-row heads
- Establishes rapidly, grows vigorously and tolerates multiple grazings
- Has very good disease resistance

### Maturity

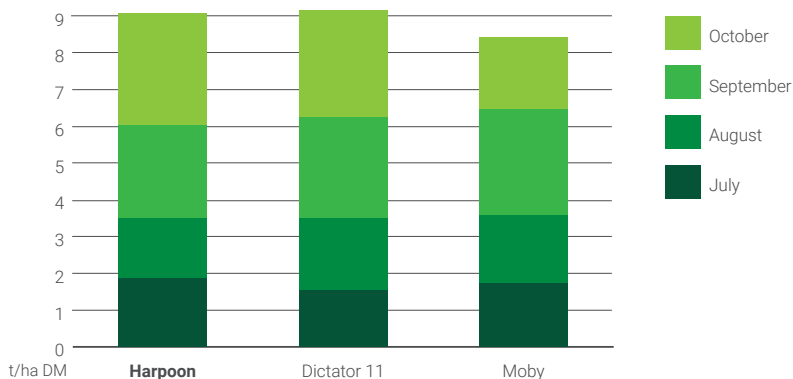
Harpoon matures quickly although later than most forage barley types, thus allowing for DM production later into the Spring.

### Where can I grow it?

- Adapts to a wide variety of sowing conditions and environments down to approximately 350mm rainfall
- Good cold tolerance



Sowing Rate: 70-90 kg/ha Dryland  
90-100 kg/ha Irrigation



Barley, Replicated Dry Matter Trial

Cressy Research Station, TAS, 2020



Lavish forage oats is the latest release from UMS originating from an Australian research and development program. Lavish has been extensively evaluated in Australian field trials over four years. It is the outstanding performer when compared to current market-leading varieties.

#### Plant Characteristics

- Semi-erect growth habit
- Prolific tillering: a high proportion of thinner tillers allows rapid recovery after cutting or grazing
- Strong initial growth and establishment reduces the time to first grazing
- Outstanding total season dry matter (DM) yield
- Highly resistant to crown (leaf) rust

#### Maturity

Lavish is a late-maturing oat variety.

#### Where can I grow it?

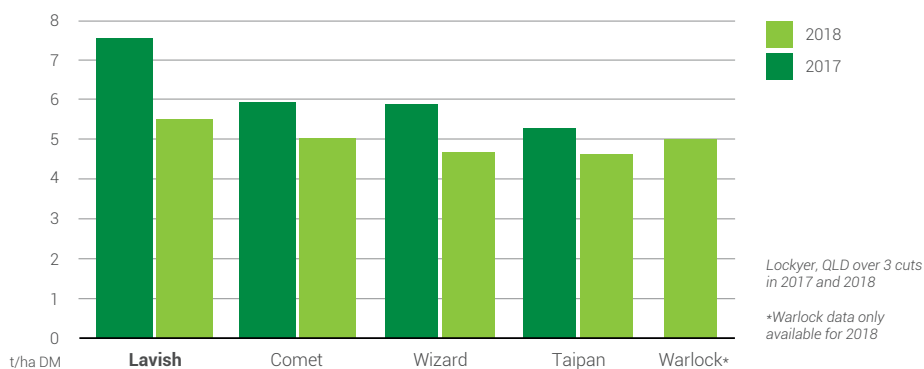
- Produces excellent results in all oat-growing regions of Australia under both dryland and irrigation situations
- Tolerates most soil types



Sowing Rate: 30-60 kg/ha Dryland/Low Rainfall  
80-120 kg/ha Irrigation/High Rainfall



**HIGHLY RESISTANT TO  
CROWN (LEAF) RUST**



Oats, Replicated Dry Matter Trial

Source: Palafor Partners, QLD





Massive is a modern forage-oat cultivar. Its enormous leaf is derived from a joint Australian/North American breeding program with the aim of providing significant early feed but having the capacity to survive tough conditions.

#### Key Features

- Very quick to first grazing, very late maturing
- Good seedling vigour
- Excellent growth during Autumn, Winter and Spring
- High tolerance to grazing

#### Plant Characteristics

- Large seed size
- Enormous leaf size
- Low growing point

#### Maturity

Massive is a very late-maturing oat variety.

#### Where can I grow it?

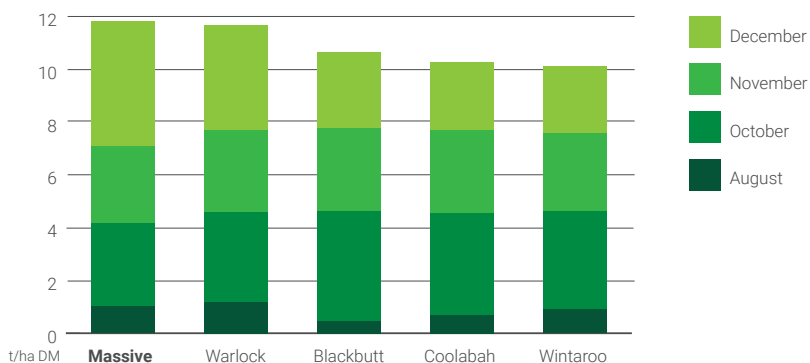
- Can be sown in many different regions but is better suited to higher rainfall inland areas.
- Suited to both dryland and irrigation conditions
- Suited to most soil types



Sowing Rate: 80-120 kg/ha Dryland/Low Rainfall  
100-150 kg/ha Irrigation/High Rainfall



**VERY QUICK TO  
FIRST GRAZING**



Oats, Replicated Dry Matter Trial

Cressy Research Station, TAS, 2019

# GrowMax

FORAGE BRASSICA

GrowMax is a modern forage brassica cultivar bred to improve quality, regrowth and yield over the traditional varieties. When well-managed, GrowMax provides high quality, cost-effective forage for beef cattle and sheep.

### Key Features

- Late flowering and early maturing
- High yielding
- Excellent regrowth after grazing
- Effective break crop beneficial to soil structure
- Produces more leaf compared to Winfred

### Plant Characteristics

- Hybrid type rape x kale
- Excellent disease resistance
- Excellent feed quality CP17-20, ME11-13

### Maturity

GrowMax establishes rapidly and is ready for first grazing in 60-90 days or when the crop is ripe based on sowing time and location. GrowMax will provide more feed from later grazings.

### Where can I grow it?

- Medium to high rainfall areas 500-700mm
- Suited to most soil types



Sowing Rate: 3-5 kg/ha  
Blend Rate: 1-2 kg/ha



	J	F	M	A	M	J	J	A	S	O	N	D
Sowing												
Grazing												

Year-round grazing is possible when forage brassica is well managed



Kiwi is a very palatable, late-maturing, perennial herb providing extended seasonal growth, which is ideal for finishing livestock.

#### Key Features

- Acid soil tolerant
- Ideal for finishing livestock
- Very high rate of summer activity
- Excellent lucerne companion

#### Plant Characteristics

- Short-term perennial
- Grows broad prostrate leaves forming a rosette
- Becomes more upright when actively growing in spring and nearing flowering

#### Activity

Warm-season growing herb, growing actively from early spring to late autumn. Winter growth slows when frosts occur, but will continue until soil temp drops below 9°C.

#### Where can I grow it?

- Deep tap root enables moderate drought tolerance.
- Can be used as an alternative to lucerne on acidic soils in high rainfall areas



Sowing Rate: 2-5 kg/ha

Blend Rate: 0.5-2 kg/ha



# Lawn Blends

Whether you need to sow a sports field or a back yard, UMS will advise on the best blend to suit the purpose. We blend and pack seed that's high in quality, germination and purity and selected to suit even the toughest conditions. Our agronomists can also offer helpful hints on establishing and maintaining a healthy and good-looking lawn.

- **Backyard Lawn** - For the rough and tumble of the backyard but easy care.
- **Hardware Blend** - Economical, hard-wearing, all-purpose lawn for the novice gardener.
- **Hardy Lawn** - A really tough, well presented but low-maintenance lawn.
- **Highway Blend** - Designed for harsh freeway or roadside conditions.
- **Sports Oval** - Quick to establish, withstands wear and tear and harsh conditions.
- **Sunny Lawn** - A very durable, persistent water-miser that looks good all year.
- **Kik & Rye Blend** - A sensational summer lawn, the rye will be the cover until the Kikuyu takes over.



# Custom Blending

Blends can really drive increased pasture production and farm profitability. UMS can blend pasture seed specifically to suit your needs, whatever your budget or farming enterprise.

- Designed to suit a widely varying range of soil types and seasonal conditions
- Formulated to provide nutritious feed throughout the season
- We can coat or treat blends as needed

**Ask your local rural retailer or UMS Area Manager to recommend a custom mix to boost productivity on your property.**



# Pasture Blends

Our range of pasture blends includes annuals for hay and silage production, through to perennials such as phalaris, winter-active fescue or ryegrass. The range is regularly reviewed to ensure it continues to boost farm productivity and profitability.

## Dairy Premium

UMS Dairy Premium blend includes both tetraploid and diploid perennial ryegrass varieties. This will provide all the benefits of a highly palatable, densely-tillered pasture that is not only long lasting, but very quick to recover from grazing.

## Equine

With the perfect, palatable ingredients specifically suited to horses, this blend has just enough clover for soil nitrification but not enough to cause laminitis. It will maintain condition without causing 'over heating' from excessive energy or protein.

## Fat Lamb Factory

A high end custom mix designed for high rainfall or irrigation situations, where the main concern will be finding enough livestock to keep on top of this pasture. This blend of ryegrasses and white clover will produce throughout the year.

## Hardy Perennial

This blend is well suited to both the hill and flat country of the southern tablelands. It was designed to withstand harsh, dry Australian summers and cool, frosty winters while maintaining optimum grazing and palatability for your set stock.

## Hay & Silage

A premium mix using high quality diploid and tetraploid ryegrasses combined with Persian, balansa and arrowleaf clovers for maximum dry matter production.

## High Density Legume

A specific annual clover blend designed as a break crop, allowing grass weed control, organic matter build-up, nitrogen fixation and high quality fodder conservation opportunities.



## Hill Country

Designed for both conventional and aerial seeding, this blend contains a high level of deep rooted, highly persistent species such as phalaris, sub-clover and cocksfoot with adaptability to a wide range of soil types.

## Meat & Milk

A hardy, high yielding perennial ryegrass and clover blend specially designed for pastoral enterprises which will provide highly nutritious feed throughout the season.

## North Coast Beef

Suited to the tropical/sub-tropic coast and rangers, this blend can be used for both dairy and beef cattle. It's made up of long lasting perennials, that with good management will persist for 10+ years.

## Recovery

An inexpensive perennial mix of ryegrass and clovers which will establish quickly and produce a large bulk of feed through winter and spring.

## Tractor Stopper

A grass-only blend of annual and short-term ryegrasses specially designed to establish quickly and is ideal for oversowing. Produces a huge bulk of feed through winter and spring.

## Tropical Horse Pasture

Made for the tropical/sub-tropical coast and rangers, this blend is suitable for horses, cattle and sheep. It contains four different grass species to give your animal variety to choose and with good management it should persist for 5-6 years.





# Research and Development

**The Australian climate is notoriously challenging, a fact of farming life which influences our research and development (R&D) program, where we focus on providing seed suited to Australian conditions.**

Since 2001, our R&D agronomists have been breeding and trialling different varieties of pasture and forage seed under authentic farming conditions. The performance data from different varieties is analysed and compared 'on-farm'. Our varietal and species recommendations are based on scientifically-produced results, backed up by practical observation.

In 2018, our R&D program expanded significantly and we now manage the former Department of Primary Industry Research Station near Cressy in the Tasmanian midlands. New varieties are assessed both visually and physically to demonstrate how beneficial traits perform and whether they are consistent over several seasons. Persistence is the key factor for perennial species.

Fully replicated trial plots are carefully monitored and statistically analysed so data is regularly updated. Dry matter cuts are obtained using the traditional cutting and drying method, which provides the most accurate data available, compared to quicker and cheaper methods (eg rising meter and probes) in use in the industry.

Species currently being bred and trialled at our research station include grasses, cereals, brassicas, legumes, and fodder crops. It's a slow process (typically 7-10 years) from breeding to evaluation, through trials to bulk-up and finally Plant Breeders' Rights (PBR) assessments prior to commercial release.

Upper Murray Seeds' agronomists and sales staff can confidently select and recommend our products to you, having seen them perform at our demonstration sites, on our production farms, and commercially.





# Seed Coating

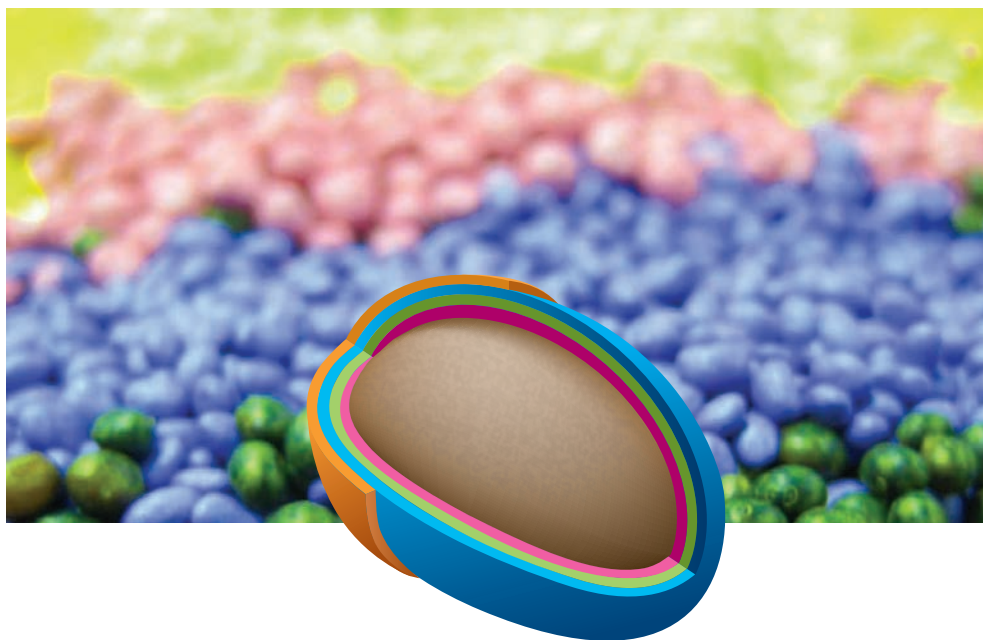
The **UMS SupaCote®** process helps protect your investment in seed.

The purpose of coating is to optimize seed germination, plant emergence and growth, as well as boosting nodulation in legumes.

**UMS SupaCote®** provides broad-spectrum protection against some major insect pests and common soil-borne diseases during plant establishment.

UMS has precise and flexible technology to coat and treat seed thanks to its highly-developed batch processing plant.

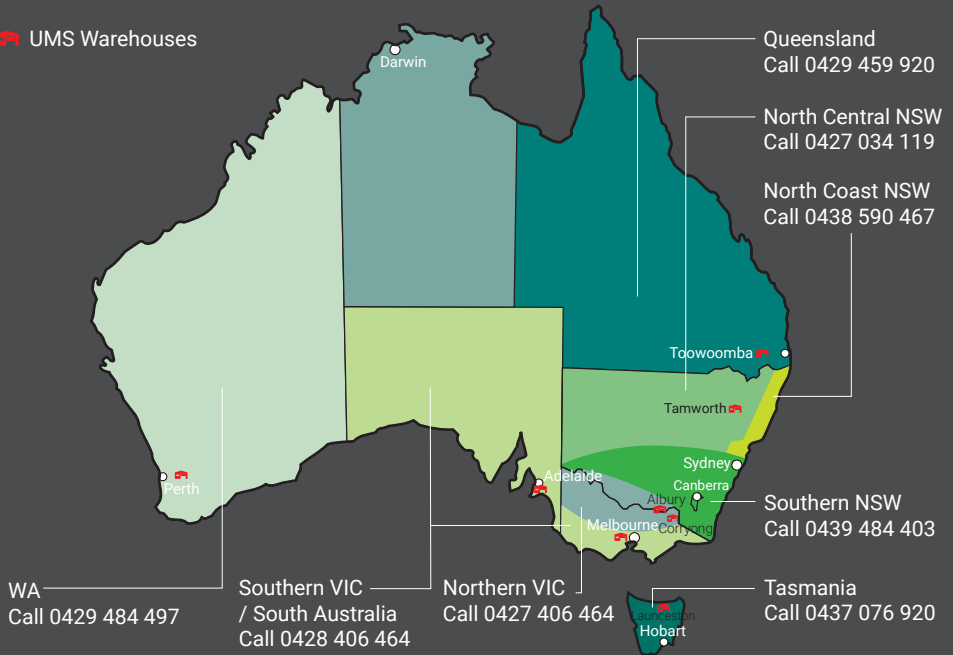
Ask your UMS Area Manager or see our website for more information about the features and benefits of **UMS SupaCote®**.



**SupaCote®**

## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

 UMS Warehouses



**Upper Murray Seeds®**  
*Sow much better*

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