



# Legume Guide

**AlfaGen**  
SEEDS

A cow stands in a lush green field at sunset. The sun is low on the horizon, creating a warm, golden glow. The cow is silhouetted against the bright light, and its shadow is cast on the grass. The background shows a line of trees and a distant horizon.

It all  
starts  
with a  
Seed

### **Why choose AlfaGen Seeds?**

At AlfaGen Seeds, our roots run deep into the land we love. No jargon, just real talk about how we can make a real difference. We understand the soil under your fingernails, the early morning starts, and the sheer determination it takes to make things grow. With decades of hands-on experience and local know-how, we're here to share what we've learned. Australian grown, our knowledge comes straight from the field, farm-tested for Aussie conditions.

Our aim is simple - to support Aussie farmers with the best seeds, the right information, and a helping hand. We'll provide you with not only top-notch seeds but also the knowledge and tools to help you grow.

**It all starts with a seed.**



## Establishment Guarantee

At AlfaGen Seeds, we stand behind the quality of our proprietary seed and always aim for the best outcome for our farmers.

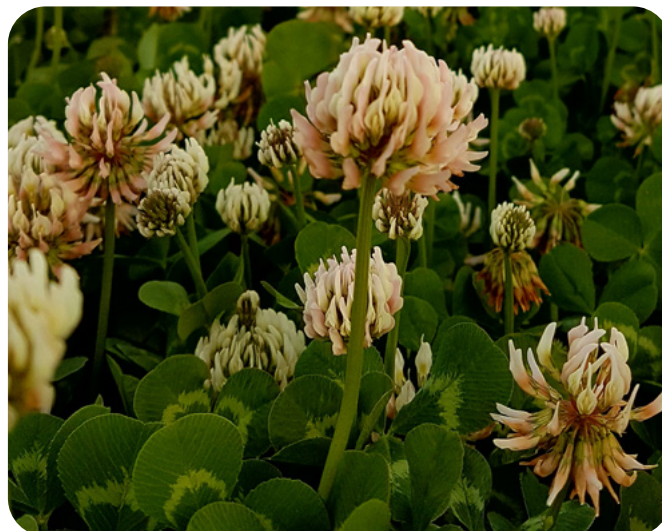
Our Establishment Guarantee is straightforward: if your seed doesn't establish successfully within 30 days, we'll replace it at half the original price. It's a commitment that helps you save on replanting costs and plant with confidence, knowing we're here to support you.

**Plant with confidence, backed by the support of AlfaGen Seeds.**

*Terms and conditions apply*

# Clover

Clover pasture legumes are high-quality forage plants that boost livestock nutrition, improve pasture resilience, and naturally fix nitrogen in the soil. Their rich protein content and palatability support animal health and productivity, making them a valuable addition to sustainable grazing systems.



## Enduromax

**BALANSA CLOVER**  
: *Trifolium michelianum*



Early-maturing balansa with elite winter production

Sowing rate	Dryland	4-6kg/ha
	High rainfall/irrigation	8-12kg/ha
Seed treatment		Goldstrike®

- ⊕ Earliest balansa clover variety
- ⊕ Very high hard seed levels
- ⊕ Good early winter growth compared with other balansa clover varieties

## Border

**BALANSA CLOVER**  
: *Trifolium michelianum*



Mid-maturity balansa with excellent persistence

Sowing rate	Dryland	4-6kg/ha
	High rainfall/irrigation	8-12kg/ha
Seed treatment		Goldstrike®

- ⊕ Excellent regenerating annual for late season environments with wet winters
- ⊕ Heading date similar to Paradana
- ⊕ High hard seed levels
- ⊕ Waterlogging tolerant

## Baler

**BALANSA CLOVER**  
: *Trifolium michelianum*



Very late maturing balansa for maximum yield potential

Sowing rate	Dryland	4-6kg/ha
	High rainfall/irrigation	8-12kg/ha
Seed treatment		Goldstrike®

- ⊕ Very late maturing
- ⊕ Waterlogging tolerant
- ⊕ Good cold tolerance
- ⊕ Excellent regrowth from grazing and cutting

## Turbo

**PERSIAN CLOVER**  
: *Trifolium resupinatum*



Late-season Persian with excellent recovery from grazing or harvest

Sowing rate	Dryland	6-10kg/ha
	High rainfall/irrigation	10-15kg/ha
Seed treatment		Goldstrike®

- ⊕ Excellent seedling establishment & winter growth
- ⊕ Very late maturing variety
- ⊕ Good frost tolerance
- ⊕ Highly digestible source of forage

## SARDI Persian

**PERSIAN CLOVER**  
: *Trifolium resupinatum*



Hard seeded type with mid-maturity

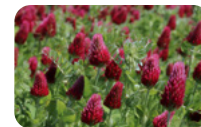
Sowing rate	Dryland	5-8kg/ha
	High rainfall/irrigation	10-15kg/ha

Seed treatment	Goldstrike®
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- ⊕ Highly digestible forage legume
- ⊕ Tolerant of waterlogging
- ⊕ Hard seeded Persian clover 'resupinatum' type
- ⊕ Excellent feed conversion for grazing animals

## Rosella

**CRIMSON CLOVER**  
: *Trifolium incarnatum*



Mid-maturing soft seeded type

Sowing rate	Dryland	5-8kg/ha
	High rainfall/irrigation	10-15kg/ha

Seed treatment	Goldstrike®
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- ⊕ Quick biomass production in cover crop and grazing situations
- ⊕ Good cool season growth
- ⊕ The flower is very attractive to pollinators

## SARDI Rose

**ROSE CLOVER**  
: *Trifolium hirtum*



Highly persistent rose clover with improved hard seed levels

Sowing rate	Dryland	5-8kg/ha
	High rainfall/irrigation	10-15kg/ha

Seed treatment	Goldstrike®
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- ⊕ Highest hard seed levels of any rose clover
- ⊕ Pioneering species
- ⊕ Tolerant to mildly acidic soils
- ⊕ Regenerates in soils with low fertility pastures

## Zulumax®

**ARROWLEAF CLOVER**  
: *Trifolium vesiculosum*



Long-season variety with high yield potential

Sowing rate	Dryland	6-10kg/ha
	High rainfall/irrigation	10-15kg/ha

Seed treatment	Goldstrike®
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- ⊕ Late heading date
- ⊕ Adaptable to heavy and low pH soils
- ⊕ Low bloat potential
- ⊕ Very high yield potential

## Bartolo

**BLADDER CLOVER**  
: *Trifolium spumosum*



Adaptable over a wide range of soil types, very high levels of hard seed

Sowing rate	Dryland	8-14kg/ha
	High rainfall/irrigation	15-20kg/ha

Seed treatment	Goldstrike®
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- ⊕ Adaptable to a wide range of soil types
- ⊕ Some tolerance to RLEM
- ⊕ Very high hard seed levels
- ⊕ Suitable for low rainfall pastures



# Sub clover

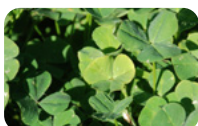
Sub clover is a grazing-tolerant, self-regenerating, annual pasture legume that thrives best from autumn through to spring. Its vigorous establishment provides excellent winter feed, and it is highly persistent in medium to high rainfall areas and other regions with infrequent cropping. Sub clover can produce large volumes of dry matter, offering exceptional value for money, and maintains its high feed quality throughout the growing season. When well nodulated, it fixes nitrogen that can be utilised by grasses and other broadleaf plants.



## Dalsa®

### SUB CLOVER

: *Trifolium subterraneum*



Early-maturing conventional sub with great early vigour

Sowing rate	Dryland	8-14kg/ha
	High rainfall/irrigation	15-20kg/ha

Seed treatment	Goldstrike®
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- ⊕ Early maturing with high levels of hard seed
- ⊕ Strong burr burial strength
- ⊕ Excellent base legume for regenerating pasture
- ⊕ Reliable seed set in early seasons, high hard seed for drought proofing

## Hatrik®

### SUB CLOVER

: *Trifolium subterraneum* sub species *yannanicum*



Mid-maturity, white-seeded sub clover with waterlogging tolerance

Sowing rate	Dryland	8-14kg/ha
	High rainfall/irrigation	15-20kg/ha

Seed treatment	Goldstrike®
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- ⊕ White seeded *yannanicum* type
- ⊕ Mid maturity variety
- ⊕ Excellent early vigour
- ⊕ Adaptable to a range of soil types

## Clare2®

### SUB CLOVER

: *Trifolium subterraneum* sub species *brachycalycinum*



Mid-maturity, large leaf 'brachy' type sub clover

Sowing rate	Dryland	8-14kg/ha
	High rainfall/irrigation	15-20kg/ha

Seed treatment	Goldstrike®
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- ⊕ Large leaf *brachycalycinum* type
- ⊕ Mid maturity variety
- ⊕ Excellent early vigour
- ⊕ Adapted to a range of soil types

## Ovaflow®

### SUB CLOVER

: *Trifolium subterraneum*



Late-maturing conventional sub for high yields in regenerating pastures

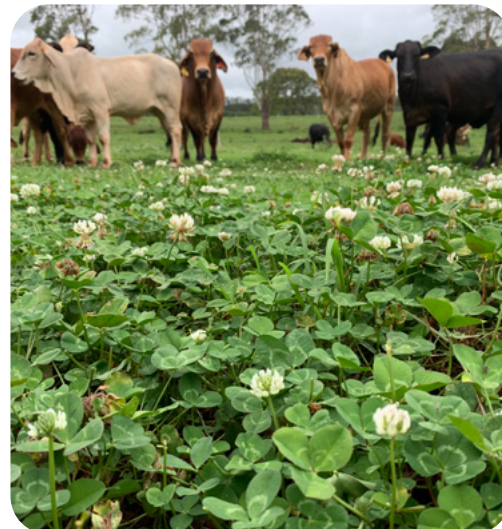
Sowing rate	Dryland	8-14kg/ha
	High rainfall/irrigation	15-20kg/ha

Seed treatment	Goldstrike®
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- ⊕ Late-maturing conventional sub clover
- ⊕ Good burr burial strength
- ⊕ Tolerant to hard levels of grazing
- ⊕ High yield potential in late-season environments

# Red/white clover

Red and white clover are versatile pasture legumes that enhance forage quality and pasture resilience. Red clover is highly digestible and rich in protein, making it ideal for silage and grazing, while white clover spreads vigorously, providing persistent ground cover and improving pasture diversity. Both species naturally fix nitrogen, supporting soil health and sustainable livestock production.



## Casper

**WHITE CLOVER**  
: *Trifolium repens*



Early-maturing variety with large leaf size

Sowing rate	Dryland	3-4kg/ha
	High rainfall/irrigation	5-8kg/ha
Seed treatment		Goldstrike®

- ⊕ Early maturing variety
- ⊕ Large leaf trait
- ⊕ Excellent permanent pasture option
- ⊕ Quick recovery from grazing

## Jumbo

**WHITE CLOVER**  
: *Trifolium repens*



Late-maturing 'Ladino' type

Sowing rate	Dryland	3-4kg/ha
	High rainfall/irrigation	5-8kg/ha
Seed treatment		Goldstrike®

- ⊕ 'Ladino' type with large leaves
- ⊕ Excellent recovery from grazing
- ⊕ High heat tolerance gives year-round production

## Riesling

**WHITE CLOVER**  
: *Trifolium repens*



Early-maturing variety with high stolon density

Sowing rate	Dryland	3-4kg/ha
	High rainfall/irrigation	5-8kg/ha
Seed treatment		Goldstrike®

- ⊕ High stolon density
- ⊕ Strong root system
- ⊕ Highly persistent in higher rainfall environments
- ⊕ Highly digestible forage

## Renegade

**RED CLOVER**  
: *Trifolium pratense*



High-yielding, short-term red clover

Sowing rate	Dryland	3-4kg/ha
	High rainfall/irrigation	5-8kg/ha
Seed treatment		Goldstrike®

- ⊕ Tetraploid type
- ⊕ Erect growing 'hay type'
- ⊕ High-yielding
- ⊕ Good disease tolerance
- ⊕ Excellent hay type for top end forage yield and annual mixes

# Clover

## Species identification and agronomic traits



Variety & species	Annual/perennial	Maturity	Hard seed	Waterlogging	Other traits
<b>Turbo persian</b>	Annual	Very late/ multi-cut	Low	Tolerant	Good heat and frost tolerance, low bloat, large leaf
<b>SARDI persian</b>	Self-regenerating	Mid	High	Tolerant	Low growth points. Regenerates from hard seed.
<b>Zulumax arrowleaf</b>	Self-regenerating	Late	High	Poor	Deep taproot, low bloat, poor winter growth. Regenerates from hard seed.
<b>Rosella crimson clover</b>	Annual	Mid	Low	Poor	Fast to establish with high winter growth. Ideal for forage or cover cropping.
<b>Alexandria berseem</b>	Annual	Mid-late	Low	Tolerant	Good early vigour, susceptible to frost, some salt tolerance
<b>SARDI rose</b>	Self-regenerating	Early-mid	Medium	Poor	Pioneering species (acidic, dry, low fertility)
<b>Bartolo bladder</b>	Self-regenerating	Early	High	Poor	Susceptible to frost. Regenerates from hard seed.
<b>Enduromax balansa</b>	Self-regenerating	Early	High	Tolerant	Good winter production. Regenerates from hard seed.
<b>Border balansa</b>	Self-regenerating	Mid	High	Tolerant	Frost tolerant. Regenerates from hard seed.
<b>Baler balansa</b>	Self-regenerating	Late	High	Tolerant	Spring sow – slow establishment. Regenerates from hard seed.
<b>Renegade red</b>	Perennial	Mid	-	Moderately tolerant	Upright/hay type
<b>Haifa white</b>	Perennial	Early	-	Moderately tolerant	Common, large leaf, high stolon density
<b>Casper white</b>	Perennial	Early	-	Moderately tolerant	Large leaf, improved early vigour
<b>Jumbo white</b>	Perennial	Late	-	Moderately tolerant	Ladino type, vigour, heat tolerance
<b>Palestine strawberry</b>	Perennial	Early	High	Tolerant	Deep-rooted, drought and salt tolerant. Regenerates from hard seed.
<b>Dalsa sub</b>	Self-regenerating	Early (97d)	High	Poor	<i>Subterraneum</i> , burr burial 9
<b>Hatrik sub</b>	Self-regenerating	Mid (114d)	Low	Tolerant	<i>Yannicum</i> , burr burial 5
<b>Clare 2 sub</b>	Self-regenerating	Mid (130d)	Low	Poor	<i>Brachycalycinum</i> , burr burial 1
<b>Ovaflo sub</b>	Self-regenerating	Late (140d)	Low	Poor	<i>Subterraneum</i> , burr burial 6

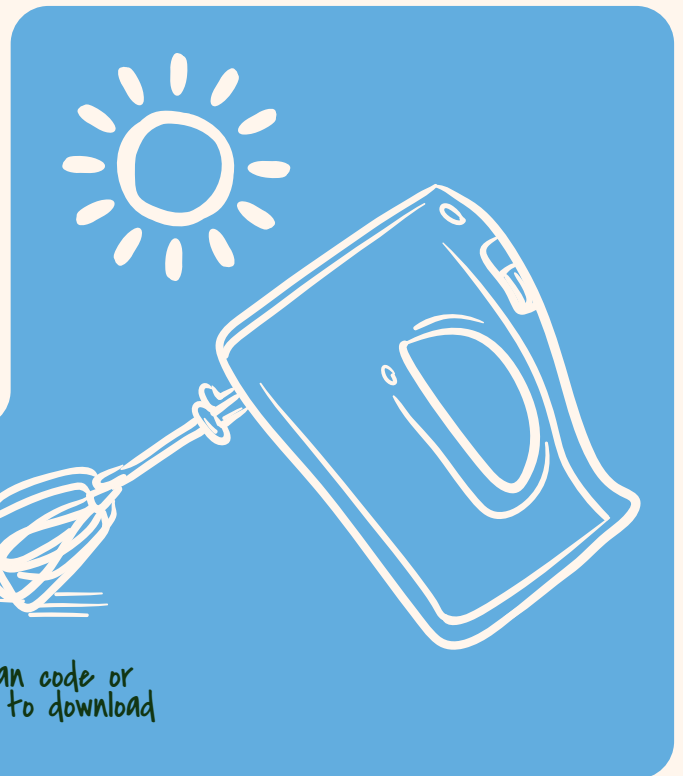




## Blends and custom mixes

Pasture legumes are excellent companion species in mixed swards, improving both forage quality and soil health. They naturally fix nitrogen, enriching the soil and supporting the growth of companion grasses, reducing the need for external inputs. Their high protein content and digestibility enhance livestock nutrition, leading to better performance and more efficient grazing. Pasture legumes also increase pasture resilience by improving soil structure, supporting biodiversity, and extending the growing season. Their deep roots help break up compaction, while their presence attracts beneficial insects and soil microbes. By integrating legumes into mixed swards, farmers can create more productive, diverse, and sustainable grazing systems.

**Speak to your local retail store or AlfaGen Seeds Territory Manager, or download our Seed Guide, to find out more about our SOWsmart® blends or custom blend your own tailor-made mix.**



# Medics

Medics are hardy annual pasture legumes that improve soil fertility by fixing nitrogen, making them valuable in crop rotations and mixed farming systems. They provide high-quality forage for livestock, enhance soil structure, and help prevent erosion. With their drought tolerance and ability to thrive in low-rainfall areas, medics support sustainable agriculture by boosting pasture productivity and reducing reliance on synthetic inputs.



## Penfield

### SPINELESS BARREL MEDIC

: *Medicago truncatula*



Early-maturing spineless barrel medic with sulfonylurea (SU) herbicide residue tolerance

Sowing rate	Dryland	10–15kg/ha
	High rainfall/irrigation	15–20kg/ha
Seed treatment	Goldstrike®	

- ⊕ Early maturity
- ⊕ Aphid resistance
- ⊕ Excellent growth rates, grazing recovery, and tolerance to drought and low-fertility soils
- ⊕ First barrel medic that is both spineless and has SU herbicide residue tolerance

Product developed in collaboration with MLA, AlfaGen Seeds & SARDI



Penfield spineless barrel medic is an early maturing, spineless barrel medic, with an SU herbicide residue tolerance trait. Barrel medics are some of the most persistent medic cultivars, offering excellent grazing recovery, tolerance to dry conditions and low fertility soils, as well as a natural level of aphid resistance. Medics are self-regenerating annual plants, meaning they will germinate from seed each year. Their hard-seeded characteristic means that one year of seed set offers numerous years of regeneration, as well as protecting from false breaks before the autumn.

The addition of the SU herbicide residue trait offers increased persistence and is a valuable option for those with mixed farming systems, with the use of sulfonylurea herbicides common in broadacre rotations. Previously, medics have been highly susceptible to damage from a range of herbicide residues, particularly SU's.

The early maturity of Penfield (80 days) offers maximum biomass production in shorter season environments, with high levels of seed set offering strong persistence. This variety was also selected for lower hard seed levels, offering better regeneration in subsequent years. Well suited to a range of soil types and environments, from loams, right through to heavier clays.

### From the field

**Table 1.** Yield and feed value of grazing end-use medic varieties grown as a crop, Nullawil 2022

Variety	Sowing rate (kg/ha)	17 Oct Biomass (t/ha)	Crude protein (%)	ME (MJ/kg)	ADF (%)	NDF (%)
Paraggio	10	2.7	21.1	10.8	29.9	36.3
Parabinga	10	4.9	18.8	9.3	38.8	47.3
Seraph	10	4.7	22.7	10.4	32.4	38.4
Penfield	10	5.6	19.4	9.7	34.4	41.0

The establishing medic also responded to fertiliser at sowing, producing 0.5t/ha more biomass and similar quality than the unfertilised plot, by 17 October (Table 2).

**Table 2.** Penfield medic response to applied fertiliser at sowing, Nullawil 2022.

Crop	Fertiliser	17 Oct Biomass (t/ha)	Crude protein (%)	ME (MJ/kg)	ADF (%)	NDF (%)
Penfield medic	+	5.6	19.4	9.7	34.4	41.0
	-	5.1	22.0	10.6	31.7	37.9

\*Alison Frischke, BCG (Standing Crops, 2022)

## Cavalier

### SPINELESS BURR MEDIC

: *Medicago polymorpha var brevispina*



Highly adaptable annual medic with versatile uses

Sowing rate	Dryland	10-15kg/ha
	High rainfall/irrigation	15-20kg/ha

Seed treatment	Goldstrike®
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- ⊕ Very early maturing
- ⊕ Barrel shaped seed pod
- ⊕ Aphid resistance
- ⊕ Excellent base legume for low rainfall pasture grazing

## Seraph

### STRAND MEDIC

: *Medicago littoralis*



Powdery mildew resistant, SU residue-tolerant strand medic

Sowing rate	Dryland	10-15kg/ha
	High rainfall/irrigation	15-20kg/ha

Seed treatment	Goldstrike®
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- ⊕ Excellent early vigour and winter production
- ⊕ Resistant to SU herbicide and powdery mildew
- ⊕ Palatable at all growth stages
- ⊕ Good adaptation to alkaline soils and low rainfall

## Silver

### SNAIL MEDIC

: *Medicago scutellata*



Excellent base legume for low rainfall pasture grazing

Sowing rate	Dryland	15-18kg/ha
	High rainfall/irrigation	18-25kg/ha

Seed treatment	Goldstrike®
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- ⊕ Early maturing
- ⊕ Erect growth habit with very early bulk
- ⊕ Excellent hay option
- ⊕ Excellent vigour and persistence

## Identifying a medic



Cavalier spineless burr



Button



Burr



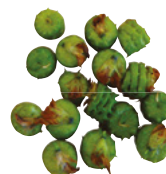
Barrel



Penfield spineless barrel



Silver snail



Seraph strand

# About Vetch

Vetch, belonging to the genus *Vicia spp.*, is an annual legume commonly cultivated during winter for its multipurpose nature. It typically develops as a sprawling vine, using branched tendrils for climbing, and can form dense stands reaching up to approximately 80cm in height. Alternatively, it can be trained to trellis on cereals or canola crops, providing opportunities for grazing, ensiling, or preservation as hay.

The *Vicia spp.* genus encompasses around 140 species of flowering plants, collectively known as vetches. Considered a large-seeded pasture legume, vetch serves various purposes including forage, fodder, and as a nitrogen-fixing green manure. In Australia, all varieties of common vetch are suitable for grain production, providing high-protein feed for ruminants and a limited portion for pig rations.

Notable species of vetches bred and cultivated in Australia include:

- ⊕ **Common or grain vetch** – *Vicia sativa*  
Timok vetch\*
- ⊕ **Woolly pod vetch** – *Vicia villosa* subspecies *dasycarpa* and *eriocarpa*  
Woolly pod vetch

\*Indicates AlfaGen Seeds proprietary products



## Timok

**VETCH**

: *Vicia sativa*



All-purpose common vetch

Recommended sowing rate	30-45kg/ha
Seed treatment	None/XLR8® optional

- ⊕ Maturity between Rasina and Morava
- ⊕ High yield and rust resistance
- ⊕ Very good vigour at flowering
- ⊕ Excels even in low rainfall situations

“

To have a legume hay yield of 4500kg/ha plus the nitrogen benefit for the following summer crop is a huge win for the Redgroves' enterprise.

*Richard Parker*

**Agronomist**

”

# Timok

VETCH

## A Game-Changer for the Redgroves' Cattle and Hay Enterprise

**Hinton (NSW) cattle and hay producers, David & Sue Redgrove, faced several challenges in August 2022. Floodwaters, greater than 2m deep, inundated their broadacre and cattle property in the Hunter Valley, leaving the property isolated for 10 days.**

After a successful Sorghum crop in summer 2022–23 (following the flood), David and Sue, along with Agronomist Richard Parker of Achieve Agronomy, decided to implement a legume rotation to address the soil de-nitrification caused by the flooding.

The 12ha paddock was worked to a fallow and finished with power-harrows resulting in an excellent seed bed. The paddock was sown on the 1st of May with Timok vetch at 30 kg/ha along with 125kg/ha of Croplift 15 fertiliser. Metribuzon herbicide was applied post sowing pre-emergent followed by 25mm of irrigation to control troublesome weeds producing a nice clean stand of Timok vetch.

The crop was treated with NPK in the form of Chelates at 5L/Ha on 3rd of August followed with 25ml of Irrigation on the 15th of August. The crop responded nicely, ultimately setting the Timok vetch up for a hay crop. The crop was cut for hay on the 22nd September and was made into Round Bale Hay, yielding 165 large round bales, averaging 14 large round bales per hectare (avg. 300kg/bale) of vetch hay.

The quality of the hay was exceptional, attracting a premium price when sold. David commented that his customers were “extremely happy with the quality and palatability of the hay”. David was impressed with Timok vetch stating, “it’s hay yield was terrific, and the cows just love it”.

Agronomist Richard Parker said the Timok vetch had done “exactly what we wanted; the shorter maturity worked perfectly for our double crop system”.

Richard went on to explain “to have a legume hay yield of 4500kg/ha plus the nitrogen benefit for the following summer crop is a huge win for the Redgroves’ enterprise”.

Following the success of the 2023 season, Timok will become a permanent part of the Redgroves’ production plans. David stated, “It’s easy to grow, there’s a ready-made market for the hay, and the added nitrogen is a win-win”.

**Note:** Following the vetch hay crop, Agronomist Richard Parker reported that the 12ha was planted with forage sorghum in summer 2023–24. The additional nitrogen benefit from the Timok vetch crop resulted in an extra 5mt/ha hay yield at first cut (extra 10 bales/ha) in the paddocks of forage sorghum following vetch than adjacent paddocks planted on non-vetch fallow.



Above

David Redgrove in paddock of Timok vetch

# We're here to help you grow

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Plant with  
confidence



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