

Summer Seed Guide



Agrimix

For you to know



Tropical Grasses



Tropical Legumes



Rainfall



Soil type



pH level



Planting rate



Silage



Hay



Agrimix
Science, Integrity, Results

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Disclaimer

This document is designed as a guide, and some products may be unavailable from time to time.

All information, including any trial results, provided by Agrimix is considered accurate at the time of publication.

The performance and results achieved using seed supplied by Agrimix may vary depending on factors including climatic conditions, soil composition, application methods and farming practices. All sales are subject to Terms and Conditions of Sale which can be accessed via our website or via our office.

Users of agricultural (or veterinary) chemical products must always read the label and any Permit before using the product, and strictly comply with the directions on the label and the conditions of any Permit. Users are not absolved from compliance with the directions on the label or the conditions of any Permit by reason of any statement made or omitted to be made in this publication. Pasture improvement may be associated with an increase in the incidence of certain livestock health disorders. Livestock and production losses from some disorders are possible. Management may need to be modified to minimise risk. Consult your veterinarian or adviser when planning pasture improvement.



Agrimix

Science, Integrity, Results



Agrimix is an independent, Australian-owned and family-run agricultural technology company

Since 2008 we have been working with producers to find solutions to pasture productivity that are evidence-based, practical, and scalable.

Our team are passionate and hard-working, offering you local knowledge and local service

Helping farmers maximise their productivity, sustainably



SCIENCE

We start with science to lead the way the right way



PERFORMANCE

Focused on maximising establishment and productivity improvements



DEMONSTRATIONS

Learning from our experts through the Agrimix field days



SOIL CARBON

Deep tap-rooted legumes for healthy, more productive and resilient soils that help build soil carbon



Driving pasture productivity

At Agrimix we understand pasture improvement is a big investment. Reliable establishment is the key to achieving high levels of production and longevity from your improved pastures

To achieve good establishment and reduce the risk of failure use the following principles to guide your pasture preparation

Keys to successful establishment

1

PREPARATION

Prepare the best seed bed possible

2

TIMING

Sow when the conditions are best for germination and establishment; ensure adequate soil moisture

3

SOIL CONDITION

Provide the right soil conditions and nutrition for optimum growth

4

COMPETITION

Minimise competition from weeds and dominant grasses

5

PESTS

Control pests

6

ALLOW TO SET SEED

Let the paddock fully flower and seed in the first season of growth

Planting Guidelines

Grasses

RAINFALL

TROPICAL GRASS RAINFALL (MM) REQUIRED

	<400	500	600	700	800	900	>1000	PAGE NUMBER
Gayndah Buffel		← →						14
Biloela Buffel		← →						15
USA Buffel		← →						16
Katambora Rhodes			← →					17
Finecut Rhodes			← →					18
Callide Rhodes			← →					19
Sabi Grass		← →						20
Bambatsi Panic	← →							21
Gatton Panic		← →						22
Bisset Creeping Blue			← →					24
Premier Digit	← →							25
Strickland Fingergrass		← →						26
Signal Grass					← →			27
Setaria					← →			28
Curley Mitchell Grass	← →							29
Whittet Kikuyu					← →			30

Planting Guidelines

Grasses



SOIL

TROPICAL GRASS PREFERRED SOIL TYPE

	SAND	SANDY LOAM	LOAM	CLAY LOAM	CLAY	PAGE NUMBER
Gayndah Buffel	←			→		14
Biloela Buffel	←				→	15
USA Buffel	←			→		16
Katambora Rhodes	←			→		17
Finecut Rhodes	←			→		18
Callide Rhodes	←			→		19
Sabi Grass	←			→		20
Bambatsi Panic			←		→	21
Gatton Panic			←		→	22
Bisset Creeping Blue			←	→		24
Premier Digit	←				→	25
Strickland Fingergrass	←				→	26
Signal Grass	←				→	27
Setaria	←				→	28
Curly Mitchell Grass					←	29
Whittet Kikuyu			←		→	30



Planting Guidelines

Legumes



RAINFALL









LEGUME RAINFALL (MM) CHART

	<400	500	600	700	800	900	>1000	PAGE NUMBER
Progardes Desmanthus								33
Caatinga Stylo								34
Shrubby Stylo								35
Carribean Stylo								36
Hughes Stylo								37
Aztec Atro								38
Burgundy Bean								39
Butterfly Pea								40



SOIL TYPE

TROPICAL LEGUME PREFERRED SOIL TYPE

	SAND	SANDY LOAM	LOAM	CLAY LOAM	CLAY	PAGE NUMBER
Progardes Desmanthus						33
Caatinga Stylo						34
Seca Stylo						35
Verano Stylo						36
Hughes Stylo						37
Aztec Atro						38
Burgundy Bean						39
Butterfly Pea						40



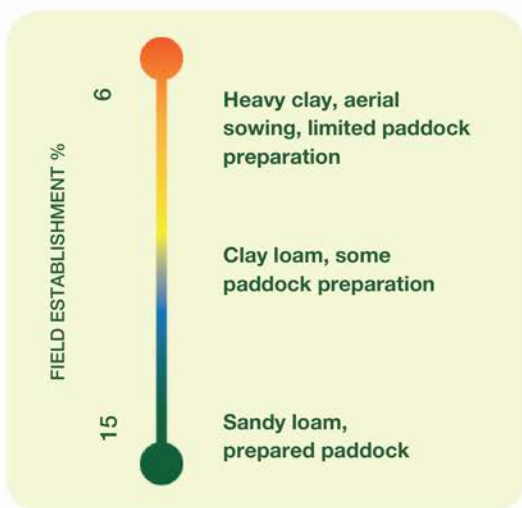
Tropical Pasture Plant Densities

Tropical plant density plays an important role in pasture production. Getting plant density right at establishment is crucial for the sustainability and longevity of the pasture.

Research has shown that 4 – 10 plants/m² offers the ideal dry matter production to resource use efficiency. This range is also conducive to legume establishment compared to higher grass plant densities.

Field Establishment

Environmental and management factors can influence seedling establishment infield. The typical range for tropical pastures is 6% - 15% established.



Pure Live Seed

Pure live seed (PLS) is a measure of that specific parcel of seed that has the ability to germinate. PLS assists in calculating a seeding rate and illustrating the quality of that specific parcel of seed. PLS is calculated using the equation below

$$\text{PLS} = \text{Purity} \times \text{Germination}$$

Note: Germination is both normal + fresh/hard seed

AN EXAMPLE OF THIS:

Katambora Rhodes Grass:

Germination = 55%

Purity = 95%

$\text{PLS} = 0.95 \times 0.55$

$\text{PLS} = 0.570$

Therefore:

57% of that Katambora Rhodes grass seed is live germinable seed.

Therefore:

Total Live per kg = $\text{PLS} \times \text{Seeds per kg}$

E.g. Coated Katambora Rhodes Grass
= 400,000 seeds/kg

Total Live seeds per kg = $0.57 \times 400,000$
= 228,000 live seeds per kg

Calculate Sowing Rate

Sowing rates can be calculated using the equations below

$$SR = \left(\frac{\text{Density}}{\text{Live Seeds}} \right) \div FE \%$$

- SR = Sowing Rate (kg/ha)
- Density = Desired plants per hectare (found by multiplying desired plants/m² by 10,000)
- Live Seeds = Total Live seeds, calculated through PLS multiplied by Total number of seeds/kg
- FE% = Field establishment percentage typically between 6% (poor paddock preparation) to 15% (good paddock preparation)

EXAMPLE 1

Coated Katambora Rhodes Grass with moderate paddock preparation

- Desired density = 100,000 plants/ha (10/m²)
- Live Seeds = 228,000 (calculated from the equation earlier)
- FE% = Planting into zero tilled sprayed paddock of sandy loam, therefore approx. 10%

$$SR = \left(\frac{100,000}{228,000} \right) \div 0.1 \quad SR = 4.4\text{kg/ha}$$

Therefore, to establish 10 plants of Katambora Rhodes Grass/m² we will need to plant at 4.4kg/ha

EXAMPLE 2

Coated Katambora Rhodes Grass with poor paddock preparation

$$SR = \left(\frac{100,000}{228,000} \right) \div 0.06 \quad SR = 7.3\text{kg/ha}$$

Therefore, to establish 10 plants of Katambora Rhodes Grass/m² we will need to plant at 7.3kg/ha

Custom Pasture Blends

We work with you to design a custom blend that meets your needs while delivering pasture productivity and profitability



OUR CUSTOM BLENDS ARE TAILORED TO YOUR



Soil type,
pH &
fertility



Seasonal
conditions



Production
goals



Enterprise
type

Popular Blends include:



Heavy clay soils blend

Mix of Progarde Desmanthus, Buffel, Bambatsi Panic, Caatinga Stylo and Butterfly Pea



Lighter textured soils blend

Mix of Seca Stylo, Verano, Buffel, Sabi grass and Katambora Rhodes grass



GAYNDAH BUFFEL GRASS

Cenchrus ciliaris

Gayndah is a medium-height variety with dense tillers

The shorter plant stature and mid maturity lends itself to light to medium soil types

KEY POINTS

- Deep-rooted summer-growing perennial
- Excellent drought tolerance
- Often preferred by stock



+530mm



Light to Medium



5.5 - 8.0



Coated: 4-12kg/ha
Bare: 1-4kg/ha

USES suited to all livestock types, silage and hay



Companion Species - Tropical grasses (Rhodes, Panic, Signal, Digits); Tropical legumes (Desmanthus, Stylos, Centros, Wynn Cassia, Leucaena)

Management

Buffel grass is slow in establishing and grazing should be delayed until seed set has been achieved, to allow proper establishment and seedling recruitment of the pasture.

Buffel quality rapidly declines with maturity, therefore should be grazed regularly to maintain leafy pastures.

BILOELA BUFFEL GRASS

Cenchrus ciliaris

Biloela is a later maturing variety suited to heavier soil types

Taller growing (to 1.5m), less densely tillered compared to Gayndah or USA Buffel

KEY POINTS

- Salt tolerant (however, has poor tolerance to waterlogging)
- Persistent
- Drought tolerant



+350mm



Wide range



5.5 - 8.0



Coated: 4-12kg/ha
Bare: 1-4kg/ha

USES suited to all livestock types, silage and hay



Companion Species - Tropical grasses (Rhodes, Panic, Signal, Digits); Tropical legumes (Desmanthus, Stylos, Centros, Wynn Cassia, Leucaena)

Management

Buffel grass is slow in establishing and grazing should be delayed until seed set has been achieved, to allow proper establishment and seedling recruitment of the pasture.

Buffel grass quality rapidly declines with maturity, therefore should be grazed regularly to maintain leafy pastures.



USA BUFFEL GRASS

Cenchrus ciliaris

USA Buffel is an early maturing type that does not produce rhizomes

Medium height variety suited to a lighter textured soil.

KEY POINTS

- Has dense foliage, ideal for forage production
- Drought tolerant
- Withstands heavy grazing



+350mm



Light to Heavy



5.5 - 8.0



Coated: 4-12kg/ha
Bare: 1-4kg/ha

USES suited to all livestock types, silage and hay



Companion Species - Tropical grasses (Rhodes, Panic, Signal, Digits); Tropical legumes (Desmanthus, Stylos, Centros, Wynn Cassia, Leucaena)

Management

Buffel grass is slow in establishing and grazing should be delayed until seed set has been achieved, to allow proper establishment and seedling recruitment of the pasture.

Buffel grass quality rapidly declines with maturity, therefore should be grazed regularly to maintain leafy pastures.

KATAMBORA RHODES GRASS

Chloris gayana

Katambora is a diploid type Rhodes grass selected for increased drought tolerance

Withstands lower soil fertility and periods of waterlogging compared to Callide; however it has a shorter growing season and decreased quality.



+600mm



Light to Heavy, well drained soils



5.5 - 8.0

KEY POINTS

- Quick establishing
- High growth rates
- Tolerates low fertility soils
- Tolerates waterlogging



Coated: 5-12kg/ha
Bare: 2-8kg/ha

USES suited to all livestock types, silage and hay



Companion Species - Tropical grasses (Creeping Bluegrass, Signal, Panics, Setaria); Twining legumes (Siratro, Desmodium, Glycine); Shrubby legumes (Desmanthus, Stylo, Centro, Lucerne)

Management

Rhodes grass should be allowed to set seed in the first year of planting to encourage seedling recruitment and seed bank. Persistence is also driven by nutrition, moisture availability, and grazing management. Rhodes grass that has been well established should be ready for grazing/cutting after 60 days. Overgrazing can increase the time to next grazing and decrease plant stands, therefore a rotational grazing system is preferred. With cutting for hay/silage, the cutting height should not go below 10cm.



FINECUT RHODES GRASS

Chloris gayana

Selected from Katambora, Finecut is a diploid type utilised for hay and silage production

Finecut has increased stem-leaf ratio and finer leaves/stems ideal for hay and silage.

KEY POINTS

- Bred for increased dry matter, silage or hay production
- Also suited to grazing



+600mm



Light to Heavy, well drained soils



5.5 - 8.0



Coated: 5-12kg/ha
Bare: 2-8kg/ha

USES suited to all livestock types, silage and hay



Companion Species - Tropical grasses (Creeping Bluegrass, Signal, Panics, Setaria); Twining legumes (Siratro, desmodium, Glycine); Shrubby legumes (Desmanthus, Stylo, Centro, Lucerne)

Management

Rhodes grass should be allowed to set seed in the first year of planting to encourage seedling recruitment and seed bank. Persistence is also driven by nutrition, moisture availability, and grazing management.

Rhodes grass that has been well established should be ready for grazing/cutting after 60 days.

Overgrazing can increase the time to next grazing and decrease plant stands, therefore a rotational grazing system is preferred. With cutting for hay/silage, the cutting height should not go below 10cm.



CALLIDE RHODES GRASS

Chloris gayana

Callide Rhodes grass is a tetraploid type, selected for later flowering, improved quality and increased biomass

Callide is suited to higher fertility soils and can be used for grazing, hay and silage.



+600mm



Light to Heavy,
well drained soils



5.5 - 8.0

KEY POINTS

- Improved pasture quality
- Increased biomass



Coated: 5-12kg/ha

Bare: 2-8kg/ha

USES suited to all livestock types, silage and hay



Companion Species - Tropical grasses (Creeping Bluegrass, Signal, Panics, Setaria); Twining legumes (Siratro, Desmodium, Glycine); Shrubby legumes (Desmanthus, Stylo, Centro, Lucerne)

Management

Rhodes grass should be allowed to set seed in the first year of planting to encourage seedling recruitment and seed bank. Persistence is also driven by nutrition, moisture availability, and grazing management. Rhodes grass that has been well established should be ready for grazing/cutting after 60 days. Overgrazing can increase the time to next grazing and decrease plant stands, therefore a rotational grazing system is preferred. With cutting for hay/silage, the cutting height should not go below 10cm.

SABI GRASS

Urochloa mosambicensis

Sabi grass is a tropical grass adapted to the dry tropics of Australia



+500mm



Wide range (prefers sandy-loam soil)



5.0 - 8.0

KEY POINTS

- Erosion control
- Tolerates heavy grazing
- Does not tolerate frost



3 - 15kg/ha

USES suited to cattle, sheep and goats



Companion Species - Tropical grasses (Rhodes, Panic, Signal, Digits); Tropical legumes (Siratro, Burgandy Bean, Desmodium)

Management

Grazing/cutting followed by irrigation will stimulate tiller production. Ideally it should be grazed prior to maturity as the quality dramatically decreases with maturity. Responds rapidly to early-season rainfall; however, will become less palatable into the cooler months. Research has shown significant responses to yield with the application of Nitrogen and Phosphorus fertilisers, especially in seed production.

BAMBATSI PANIC

Panicum coloratum

An extremely palatable perennial grass suitable for heavy to medium clay soils and tolerant of both drought and waterlogging



+450mm



Medium to heavy clay

KEY POINTS

- High yield
- Cold tolerant
- Tolerates melon hole country
- Leafy, large and tall
- Persistent even in low N soils
- Tolerant to moderate soil salinity
- Tufted style growth
- Prolific seeding



5.5 - 8.0



Coated: 4-12kg/ha
Bare: 1-4kg/ha

USES suited to all livestock types, silage and hay



Companion Species: Tropical grasses (Rhodes, Creeping Bluegrass, Setaria, Purple Pigeon, Signal, Paspalum); Twining legumes (Siratro, Desmodium, Glycine); Shrubby legumes (Desmanthus, Stylo, Centro, Lucerne)

Management

Careful grazing management needs to be considered when using Panics.

Due to the high palatability, livestock will preferentially graze them, which may reduce plant stand.

Rotational grazing is the best method for grazing.



GATTON PANIC

Panicum maximum

Highly productive, quality grass well adapted to sub-tropics for medium to heavy soil types



+500mm



Loam-Well
Drained Clay

KEY POINTS

- Grows well in shade
- Moderately tolerant of drought
- Tolerates more grazing intensity than Green Panic
- High palatability
- Responds quickly after rain
- Ideal for hay-making



5.5 - 8.0



Coated: 4-12kg/ha
Bare: 1-4kg/ha

USES suited to all livestock types, silage and hay



Companion Species: Tropical grasses (Rhodes, Creeping Bluegrass, Setaria, Purple Pidgeon, Signal, Paspalum); Twining legumes (Siratro, desmodium, Glycine); Shrubby legumes (Desmanthus, Stylo, Centro, Lucerne)

Management

Careful grazing management needs to be considered when using Panics.

Due to the high palatability, livestock will preferentially graze them, which may reduce plant stand. Rotational grazing is the best method for grazing.



GREEN PANIC

Panicum maximum

High quality and high palatability, Green Panic is used broadly in grazing systems

KEY POINTS

- Leafy plant, very productive
- High palatability
- Tolerates shaded areas such as river banks & under trees
- Moderately tolerant of drought
- Responds quickly after rain



+500mm



Loam-Well
Drained Clay



5.5 - 8.0



Coated: 4-12kg/ha
Bare: 1-4kg/ha

USES suited to all livestock types, silage and hay



Companion Species - Tropical grasses (Rhodes, Creeping Bluegrass, Setaria, Purple Pidgeon, Signal, Paspalum); Twining legumes (Siratro, Desmodium, Glycine); Shrubby legumes (Desmanthus, Stylo, Centro, Lucerne)

Management

Careful grazing management needs to be considered when using Panics.

Due to the high palatability, livestock will preferentially graze Green Panic, which may reduce plant stand.

Rotational grazing is the best method for grazing.



BISSET CREEPING BLUEGRASS

Bothriochloa insculpta

Bisset bluegrass is a vigorous stoloniferous grass with finer stems for improved grazing and cutting compared to Hatch

KEY POINTS

- Thrives on well-drained soil where Rhodes grass and Panics grow
- Bisset is able to handle lower fertility soils with similar growth
- Waterlogging conditions can affect Bisset stands and should not be considered in these areas



+600mm



Loam - Clay
(free draining)



5.0 - 7.0



Straight: 12-15kg/ha
Mix: 4-8kg/ha

USES suited to all livestock types, silage and hay



Companion Species: Tropical grasses (Rhodes, Signal, Panics, Setaria); Twining legumes (Siratro, Desmodium, Glycine); Shrubby legumes (Desmanthus, Stylo, Centros, Lucerne)

Management

In the first year, grazing should be avoided until seed-set to allow for seedling recruitment.

Rotational grazing is the preferred grazing method as this will allow root development from stolons between grazings. Cutting Bisset when leafy provides excellent quality hay/silage; however, once stands mature, quality will rapidly decline.



PREMIER DIGIT GRASS

Digitaria eriantha

Premier Digit is a highly productive tropical grass that is suited to the transitional area where tropical and temperate climates meet

KEY POINTS

- Tolerating acid soils and drought as well as the ability to handle hard grazing short term
- Although frost susceptible, Premier Digit has better cool season activity than most other tropical grasses



+400mm



Wide Range
(free draining)



5.5 - 8.0



Straight: 12-15kg/ha
Mix: 4-8kg/ha

USES suited to all livestock types, silage and hay



Companion Species: Tropical grasses (Rhodes, Creeping Bluegrass, Consol Lovegrass); Twining legumes (Sirato, Glycine); Shrubby legumes (Desmanthus, Stylo, Centros, Lucerne)

Management

Premier Digit has the ability to handle short hard periods of grazing and then able to recover.

Ideal grazing should be done at 30-40cm height, this allows for maximum quality and the best rotation (2-3 weeks). Allowing seed sets should be done once per year to encourage seeding recruitment.



STRICKLAND FINGERGRASS

Digitaria milanijana

Vigorous stoloniferous perennial summer grass suited to a range of soils, ideal for grazing and hay making



+550mm



Light to medium, well drained soils



5.5 - 8.0



Coated: 3-9kg/ha
Bare: 2-4kg/ha

KEY POINTS

- Withstands short periods of waterlogging but not prolonged events
- Highly palatable, particularly when young
- Cannot withstand heavy grazing
- Sensitive to frost
- Intolerant of heavy grazing

USES suited to cattle, sheep and goats, silage and hay



Companion Species - Twining legumes (Siratro, Desmodium, Glycine); Shrubby legumes (Desmanthus, Stylos, Centros, Lucerne)

Management

Delay grazing until seed set to allow sufficient time to establish well.

Strickland fingergrass has good ability to spread through sown paddock but generally does not spread further.

Once established, Strickland fingergrass can withstand periods of drought.

SIGNAL GRASS

Brachiaria decumbens

Signal grass is an aggressive, persistent tropical grass suited for Australia's coastal regions

KEY POINTS

- Productive under high levels of soil aluminium and heavy grazing pressures
- Responds well to nitrogen fertiliser
- Signal grass does contain oxalates and should not be consumed by horses



+800mm



Wide Range



4.5 - 7.5



3-15kg/ha

USES suited to cattle, sheep and goats, silage and hay



Companion Species: Tropical grasses (Rhodes, Panic, Setaria, Digits); Tropical legumes (Desmanthus, Stylos, Centros, Wynn Cassis, Leucaena)

Management

Light grazing for the first six months of pasture establishment to encourage plant development. Signal grass can cope with periods of heavy grazing. Seed set should be allowed to increase persistence and seedling recruitment in the first year. Signal grass can also be cut for hay/silage prior to head emergence when quality/quantity is at its highest.



SETARIA

Setaria sphacelata var. sericea

Summer growing perennial grass with high dry matter production



+800mm

Cultivars**Narok Setaria:**

- Bred for frost tolerance handling temperatures to -3C degrees
- Early maturing



Wide Range

Splenda Setaria:

- Selected for later maturity
- Increased leaf to stem ratio for improved forage performance



5.0 - 7.0

Solander Setaria:

- Similar to Narok, with improved cold tolerance
- Increased inflorescence for higher seed production



Coated: 5-12kg/ha

Bare: 1-4kg/ha

USES suited to cattle, goats, sheep, silage and hay
Setaria is not suitable for horses because it contains moderate to high oxalate levels.



Companion Species: Tropical grasses (Rhodes, Panic, Signal, Digits); Tropical legumes (Desmanthus, Stylos, Centros Wynn Cassia, Leucaena)

Management

Setaria should be allowed to set seed in the first year. Feed quality rapidly declines when grazing mature Setaria pastures.

Optimum grazing height is 30cm. If pastures become rank, slashing/mowing may be needed to bring pasture back under control.



CURLY MITCHELL GRASS

Astrebla lappacea

Long-living native grass adapted to low, summer-dominant, rainfall zones of Australia

Becoming dormant through drought, Curly Mitchell grass readily reshoots with rainfall providing quality feed when grazed at the appropriate time.



250- 550mm



Heavy
cracking soils



6.5 - 9.0

KEY POINTS

- Long-lived
- Drought tolerant



2 - 8kg/ha

USES suited to all livestock types, silage and hay



Companion Species - Salt Bush

Management

Grazing/cutting followed by irrigation will stimulate tiller production.

Curly Mitchell grass has a specialised root system that allows the plant to persist in drought and heavy grazing situations. The species is long-lived, however, the seed set is sporadic and seeding recruitment may be irregular.

WHITTET KIKUYU

Pennisetum clandestinum

Kikuyu is a highly productive tropical grass adapted to fertile soils



+800mm

KEY POINTS

- Having rhizomes and stolons, Kikuyu is able to withstand heavy grazing
- An efficient ground cover for erosion control
- Has a long growing season and has the ability to tolerate frosts better than other tropical grasses
- Keeps its quality late into the season
- Responds well to Nitrogen



Fertile loam - Clay



5.5 - 8.0



3-10kg/ha

USES suited to cattle, goats, sheep and silage. Kikuyu can contain oxalates throughout growing season and horse that graze Kikuyu should be supplemented with calcium.



Companion Species: Kikuyu is typically planted on its own without other tropical species as it tends to dominate; however, it can be planted with tropical legumes (Creeping Vigna, Lotus, Siratro and Desmanthus) and temperate legumes (White Clover, Red Clover, Medics, Balansa)

Management

Once established, a rotation of 2-3 weeks to keep maximum quality. Rotational grazing is the preferred grazing method as Kikuyu should be grazed hard to maintain forage quality.



QLD BLUEGRASS

Dichanthium sericeum

Native grass that is persistent under low nitrogen conditions



+500mm



Clay/
Heavy Clay



6.0+



Coated: 3-15kg/ha

KEY POINTS

- Suited to establishment on heavy cracking clay soils
- High palatability
- Provides less competition to companion legumes than other sown grasses
- NOTE: not suited for acid soils and is intolerant of waterlogging

USES suited to all livestock types, silage and hay



Companion Species: Tropical grasses (Rhodes, Creeping Bluegrass, Setaria, Purple Pigeon, Paspalum); Twinning legumes (Siratro, Desmodium, Glycine); Shrubby legumes (Desmanthus, Stylo, Centros, Lucerne)

Management

Bluegrass is slow to establish. The first season it should be allowed to seed down.

Seeding down allows seedling recruitment and prolongs the life of the pasture. Bluegrass when leafy is highly palatable and consumed by all stock classes. As Bluegrass matures the palatability and quality decline and sheep may not preferentially consume.



FLOREN BLUEGRASS

Dichanthium aristatum

Adapted to cracking clay soils, Floren has the ability to tolerate waterlogging, drought and salinity prone areas



+500mm



Clay/
Heavy Clay

KEY POINTS

- Very late flowering allows Floren to hold its quality late into the seasons
- Susceptible to frost
- Tolerates heavy grazing
- Persists in low nitrogen soils



+6.0



Coated: 3-15kg/ha

USES suited to all livestock types, silage and hay



Companion Species: Tropical grasses (Rhodes, Creeping Bluegrass, Setaria, Purple Pigeon, Paspalum); Twining legumes (Siratro, Desmodium, Glycine); Shrubby legumes (Desmanthus, Stylo, Centros, Lucerne)

Management

Bluegrass is slow to establish, in the first season it should be allowed to seed down. Seeding down allows seedling recruitment and prolongs the life of the pasture.

Bluegrass when leafy is highly palatable and consumed by all stock classes. As Bluegrass matures the palatability and quality decline and sheep may not preferentially consume.

PROGARDES

Desmanthus spp.

Pasture legume blend developed for clay-rich soils. It is hardy and very drought tolerant

Progardes is persistent, productive, and palatable.

KEY POINTS

- High protein (12-20% CP)
- Tolerates heavy grazing
- Frost tolerant
- Long deep tap roots
- Non-toxic, no mimosine



+450mm



Heavy clay soils



Neutral to alkaline



Mix: 1.5-3

USES suited to all livestock types, silage and hay



Companion Species: Tropical grasses (Rhodes, Panic, Signal, Digits); Tropical legumes (Stylos, Butterfly pea, Leucaena)

Management

Sowing time ideally September to February when soil temp is above 15C. Sow with good moisture profile (>40cm by mid-January) and/or when there is a high chance of effective rainfall.

Minimise competition from weeds and dominant grasses before sowing.

Let Progardes® fully flower and set seed in the first season to ensure a seed bank has been established.

Light grazing after seed has set can create more foliage and seed set for next season.

Progardes®
Establishment Guide
for more information



CAATINGA STYLO

Stylosanthes seabrana

A mix of Unica and Primar Stylos, Caatinga Stylo is a shrubby legume suited for heavier clay environments

Can tolerate heavy grazing once established

KEY POINTS

- Once frosted it will lose its leaf
- Will regrow once the season begins



+500mm



Clay Loam/Heavy Clay



6.0 - 8.0



Mix: 2kg/ha

USES suited to all livestock types, silage and hay



Companion Species: Tropical grasses (Rhodes, Panic, Signal, Digits); Tropical legumes (Desmanthus, Butterfly pea, Leucaena)

Management

Typically planted at the beginning of the wet season after the risk of frosts has diminished, Good weed control should be undertaken before sowing Stylo to ensure little competition from broadleaf weeds.

Stylo should be allowed to set seed in the first season, to build on seed bank. Once established stylo can be rotationally grazed and can tolerate heavy grazing.



SHRUBBY STYLO

Stylosanthes scabra

A perennial shrubby legume adapted to lower fertile soils

Drought tolerant and can handle heavy grazing scenarios

KEY POINTS

- Will burn off in frost but recovers in warmer months
- The mature plant may decline in palatability
- Cultivars: Seca, Siran



+500mm



Clay Loam/Heavy Clay



6.0 - 8.0



Mix: 2kg/ha

USES suited to all livestock types, silage and hay



Companion Species: Tropical grasses (Bluegrass, Buffel Grass, Sabi Grass, Digits); Tropical Legumes (Siratro, Verano Stylo, Burgundy Bean)

Management

Typically planted at the beginning of the wet season after the risk of frosts has diminished. Good weed control should be undertaken before sowing Stylo to ensure little competition from broadleaf weeds.

Stylo should be allowed to set seed in the first season, to build on seed bank. Once established stylo can be rotationally grazed and can tolerate heavy grazing.



CARRIBEAN STYLO

Stylosanthes hamata

Shrubby trifoliate legume
Caribbean Stylo is typically grown in the seasonally dry and wet tropics in far North QLD and NT

Can be over-sown into existing native or improved pastures

KEY POINTS

- Very sensitive to frost
- Does not tolerate waterlogging
- Cultivars: Verano, Amiga


 +500mm


 Clay Loam/Heavy Clay


 6.0 - 8.0


 Mix: 2kg/ha

USES suited to all livestock types, silage and hay



Companion Species: Tropical grasses (Bluegrass, Buffel Grass, Sabi Grass, Digits); Tropical legumes (Siratro, Seca Stylo, Burgundy Bean)

Management

Typically planted at the beginning of the wet season after the risk of frosts has diminished. Good weed control should be undertaken before sowing Stylo to ensure little competition from broadleaf weeds.

Stylo should be allowed to set seed in the first season, to build on seed bank. Once established stylo can be rotationally grazed and can tolerate heavy grazing.

HUGHES STYLO

Stylosanthes guianensis

Highly palatable legume for the warm humid tropics

Hughes stylo is able to persist under acidic conditions.

KEY POINTS

- Anthracnose tolerance
- Has the ability to persist under poorer conditions
- Ability to handle low P soils



+700mm



Sand - Clay Loam



4.0 - 8.0



Mix: 2kg/ha

USES suited to all livestock types, silage and hay



Companion Species: Tropical grasses (Panics, Kikuyu, Setaria, Rhodes Grass, Signal Grass, Paspalum); Tropical legumes (Glenn Joint vetch, Centro, Siratro, Desmodium)

Management

Typically planted at the beginning of the wet season after the risk of frosts has diminished. Good weed control should be undertaken before sowing Stylo to ensure little competition from broadleaf weeds.

Hughes stylo should be grazed lightly and early to encourage lower branching out. Grazing plants when they become woody may reduce plant stand as the growing points may be removed.



SIRATRO - AZTEC ATRO

Macroptilium atropurpureum

A climbing and twining non-bloating legume suited to sub-tropical and tropical climates

Siratro is highly palatable and can fix nitrogen for itself and accompanying grass.

KEY POINTS

- Intolerant to persistent waterlogging, heavy grazing and flooding.



+700mm



Wide Range



6.0 - 8.5



Mix: 2kg/ha

USES suited to all livestock types, silage and hay



Companion Species: Siratro is best planted with tufted tropical grasses (Buffel, Panics, Bluegrasses, Digits, Setaria); Tropical legumes (Desmodium, Burgundy Bean, Caatinga, Stylo)

Management

Typically planted between October and January when reliable rainfalls are forecast. Dry spells should be avoided. Normally sown in a mixed pasture Siratro should be inoculated with Group M inoculant.

Siratro should not be grazed heavily, allowing residual vine and leaf to encourage regrowth. Rotational grazing is preferred and should be allowed to flower and seed to encourage seedling recruitment increasing its persistence.



BURGUNDY BEAN

Macroptillium bracteatum

A climbing/trailing legume Burgundy bean is a perennial/short-term legume with good drought tolerance

Grows well in cooler temperatures compared to other tropical legumes



+600mm



Loam/Heavy Clay



6.0

KEY POINTS

- Highly palatable
- Can be selectively grazed to reduce legume density.



Straight: 5-8kg/ha

Mix: 2-4kg/ha

USES suited to all livestock types, silage and hay



Companion Species: Tropical grasses (Rhodes, Panic, Signal, Digits); Tropical legumes (Desmanthus, Stylos, Centros, Leucaena)

Management

Sown from November to February with reliable rainfall. Planting depth of 1-2cm and needs a specific rhizobium (CB1717).

Rotational grazing should be undertaken to reduce the risk of prolonged selective grazing.

Seed set should be allowed to encourage seedling recruitment.



BUTTERFLY PEA

Clitoria ternatea

A climbing and twining legume, Butterfly Pea is adapted to the tropical regions of Australia

Able to persist in areas with long dry periods and is an easy to establish non-bloating legume

KEY POINTS

- Handles heavy grazing
- Sub-tropical swards have no growth in cooler months



+650mm



Wide Range
preferred heavy soils



6.0



Straight: 7-10kg/ha
Mix: 2-4kg/ha

USES suited to all livestock types, silage and hay



Companion Species: Tropical grasses (Rhodes, Panic, Signal, Digits); Tropical legumes (Desmanthus, Stylos, Centros, Leucaena)

Management

Sowing time ideally November to February when soil temperature is above 16 C with reliable rainfall. Butterfly pea should be inoculated with Group M (Siratro) inoculant.

Butterfly pea can handle heavy grazing in a rotational system. When cutting for hay or silage, the plants should be no lower than 60cm. When establishing, grazing/cutting should be delayed for 14-20 weeks after establishment.



GREEN LEAF DESMODIUM

Desmodium intortum

Viny, climbing, non-bloating legume, adapted to Australia's high rainfall costal areas

Good growth in autumn and spring

KEY POINTS

- Tolerates shaded areas
- Slow to establish (low seedling vigour), requires careful management



+900mm



Sandy Loam/Clay Loam



5.0+



Mix: 2kg/ha

USES suited to the following livestock types



Companion Species: Tropical grasses (Rhodes, Panic, Signal, Digits); Tropical legumes (Desmanthus, Stylos, Centros, Wynn Cassia, Leucaena)

Management

Typically planted between October and January with reliable rainfall. Dry spells should be avoided. Usually sown in a mixed pasture and should be inoculated with CB27 inoculant. Once established, Green Leaf Desmodium should be rotationally grazed to reduce selective grazing. The growing points of the legume should not be grazed to encourage recovery after grazing.



WYNN CASSIA

Chamaecrista rotundifolia

Wynn Cassia is a short-term crawling herbaceous non-bloating legume



+400mm



Lighter soil types

KEY POINTS

- Thrives on less fertile country
- Typically poorly grazed due to high tannin levels in the leaf



5.0 - 8.5



Mix: 2kg/ha

USES suited to the following livestock types



Companion Species: Tropical grasses (Rhodes, Creeping Bluegrass, Digits, Panic and other species accustomed to lighter soils)

Management

Typically planted between October and November with reliable rainfall. Dry spells should be avoided. Normally sown in a mixed pasture and should be inoculated with Group M inoculant.

Wynn Cassia can handle heavy grazing. It is a heavy seeding legume and will regenerate from seed annually when rainfall is below 700mm, however it will perenniate above 700mm.



Take some notes





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