

AGF seeds



SEED GUIDE

2022 1st EDITION

GRAIN

BIGRED ◊
CESARIO ◊
ASCOT ◊
MAXIMUS CL ◊
KELPIE XT ◊
TAYLOR ◊

FORAGE & PASTURE

TARGET SEED BLENDS
HEADSTART FORAGE BLENDS
VAMPIRE ◊ RYECORN
MARLEIGH OATS
FORESTER ◊ OATS
PINNACLE RYEGRASS

COVER CROP

FARMOUR
MULTI-SPECIES AND
BIOFUMIGANT BLENDS
FREYR SUNN HEMP
TILLAGE RADISH

LAWN SEED

READY TO GROW



YOUR COMPREHENSIVE GUIDE TO
GRAIN, FORAGE, PASTURE, COVER CROP AND LAWN SEED

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Sowing Rates Notice:

Please use the sowing rates, in this guide, as a guide only. You may need to adjust the sowing rates to compensate for: sowing date, seedbed conditions, sowing techniques, soil fertility, soil type, field losses, etc.

Pictured on the front cover:

Left, Andrew McNaughton, AGF Seeds General Manager and right, Mike Smyth previous owner of Smyth Seeds. Commemorating the change of ownership of Smyth Seeds with a photo in front of Forester oats.

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Matt Brown
Customer Service



Carley Walton & Rachel Brown
Operations Scheduler - Sales Support
and Customer Service



Joel McNaught
Warehouse and logistics



David Perry
Operations Manager





THE SEEDS OF OUR SUCCESS

AGF Seeds has a well-established reputation for selling seed and providing expert independent advice to resellers and growers throughout Australia.

This year we've grown even bigger and better following the acquisition of Smyth Seeds, making us one of the leading seed production and marketing businesses in the country.

Our family-owned business is totally committed to continuous improvement and innovation, with an absolute focus on quality and what's best for farmers.

From our bases in Smeaton in Central Victoria and Benalla in the state's North-East, we offer a comprehensive range of quality seed for cropping and pasture farming systems.

Our extensive trial program, farmer feedback and our decades of personal experience give us the expertise to share our advice on varieties that will best suit your farming system and increase your profitability.

Image: Left: Brendan Torpy, R&D Manager Right: Tim Brown, Product Development Manager and Director. Pictured at Smeaton trial site.



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Establishing & Managing New Pastures



The grass you grow and the fodder you cut on your own farm, can be the cheapest stock feed there is. At the same time, renovated pastures can increase your carrying capacity and significantly increase the value of your farm. It pays to prepare for pasture renovation as you would for any investment.

PRE SOWING CHECKLIST

✓ Choose the right paddock

Make your choice based on the best outcome for you, whether it be the lowest performing paddock or the paddock most likely to be successful.

✓ Do a soil test and address possible soil problems

Doing a soil test eliminates guesswork, you'll know what you're dealing with and what to correct if needed.

✓ Get persistent weeds under control

This could be done by herbicides, spray grazing, spray topping, cultivation or strategic intensive grazing. When using herbicides, the advice of your local agronomist will be invaluable.

✓ Establish an optimal seed bed

You can direct drill or cultivate if necessary, if cultivating it is the ideal time to apply lime or gypsum.

✓ Choose the right pasture seed variety
Use this guide and then speak to your local pasture agronomist. Using the right varieties and choosing quality assured seed is one of the keys to success.

✓ Beat the rush and order pasture seed early

The autumn sowing season represents a peak in demand in every store.

✓ Go for quality seed

Look for this logo when you purchase seed. Seed businesses (such as AGF Seeds Smyth Seeds) who comply with the Australian Seed Federation (ASF) National Code of Practice commit to packaging and labelling seed to accurately reflect what is inside the bag. This includes full details of the species and % of purity and germination.



SOWING CHECKLIST

✓ Choose the right time for sowing

Autumn is the preferred time for sowing pasture, in autumn you are most likely to find a combination of good soil moisture and suitable soil temperature.

✓ Control weeds by spraying

Deal with weeds swiftly during establishment because they steal valuable light, nutrients and moisture.

✓ Choose the right sowing method

Choose the method that will achieve good seed-soil contact.

✓ Provide a boost and fertilise

You will give your seed a head start if you provide a source of nitrogen and phosphorus at sowing, it boosts germination and vigorous seedling development.

✓ 'Tuck' your seed into their bed.

Consider dragging harrows, mesh or similar behind your seed drill or use a light, rubber-tyred roller to improve seed-soil contact. (Avoid rolling wet soils that are likely to 'crust'.)

AFTER SOWING TIPS

1. Monitor for insect damage and deal with accordingly*.
2. The pasture should receive a short, sharp grazing when the plants are at about 10 cm in height with a sufficient root system for them not to be pulled out during grazing.
3. Rotate your grazing to maximise the ongoing production and persistence of your pasture.
4. Avoid cutting a first-year perennial pasture for hay, as it can severely affect its persistence.

*There are numerous pests that will adversely affect pastures, these include but are not limited to; Argentine stem weevil, Army worms, Blackheaded pasture cockchafer, Blue Oat Mite (BOM), Clover mite, Lucerne Flea, Redheaded pasture cockchafer, Red Legged Earth Mite (RLEM), Slugs.

For control of these pests speak to your local pasture agronomist.

Purpose Built Seed Blends

- Premium blends with trusted performance
- Proven varieties
- More seed in the bag, with SlimCoat.
See page 20 for more information.

*Contents of mixes may be adjusted
according to availability of seed.*



TARGET
Performance Pasture
Seed Blends
PG 5



HEAD START
Forage Blends
PG 9



READY TO GROW
Lawn Seed Range
PG 10



Farmour
Multi species cover crop and
biofumigant soil health range
PG 11

Meet the key people

who do the seed cleaning, treating, mixing and packing,
ensuring you a high quality end product

Andrew Clarke

Seed cleaning and treating



- 16 years with AGF Seeds
- Father of 3
- Enjoys running & keeping fit
- Completed 2 marathons
- Conservationist

Neil Chanter

Mixing and packing



- 22 years with Smyth Seeds
- From a farming background
- Enjoys Tennis, Golf and Travelling
- Married with 2 daughters

Lee Dalglish

Mixing and packing



- 14 years in Seed Industry
- Cancer Survivor
- Basketball and Cricket sportsman
- Father of 4

Performance Pasture Seed Blends

Perennial Blends

TARGET blends are convenient, mixed and ready to sow solution for establishing perennial, short term and specialist pastures. They are reliable blends made up of proven varieties and contain the highest quality seed. The use of SlimCoat on the pasture legumes, where ever possible, ensures there is more seed in the bag.



TARGET PREMIUM ENDOPHYTE

Bealey NEA2	Perennial Ryegrass (Gaucho).....	10.5
Impact 2 NEA2	Perennial Ryegrass (Gaucho).....	10.5
Quest scga	White Clover (SlimCoat + Gaucho).....	2
Beast / Haifa	White Clover (SlimCoat + Gaucho).....	2
Sowing Rate		25kg/ha

Where late season maturity and production is required in a mix that has no ryegrass staggers or heat stress issues, then Premium Endophyte mix is ideal. This mix will suit both irrigation and high rainfall environments and has a blend of white clovers providing persistence, high stolon and leaf density and strong seasonal growth.



TARGET OVERSOW

Jackal AR1	Perennial Ryegrass	3
Hustle AR1	Perennial Ryegrass	3
Rula	Hybrid Ryegrass.....	4
Xtend	Italian Ryegrass	5
Sowing Rate		15kg/ha

Target Oversow is specifically designed for use on irrigated or high rainfall perennial pastures. It is a blend of high quality perennial, hybrid and Italian ryegrasses that can be used to rejuvenate pastures that have thinned out due to overgrazing or drought.



TARGET FINISHER

Tenacious	Perennial Ryegrass (Gaucho).....	5
Rula	Hybrid Ryegrass (Gaucho).....	5
Hustle AR1	Perennial Ryegrass (Gaucho).....	4.5
Quest	White Clover (SlimCoat + Gaucho).....	1
Beast /Haifa	White Clover (SlimCoat + Gaucho).....	2
Rossi	Red Clover (SlimCoat + Gaucho).....	1.5
Antas	Sub Clover (SlimCoat + Gaucho).....	3.5
Puna	Chicory (Gaucho).....	2.5
Sowing Rate		25kg/ha

Premium high performance blend for medium term production in high rainfall and irrigated districts. Target Finisher contains late maturing ryegrasses with white and red clovers and chicory that continue to provide high quality feed late into the season. Use target finisher to finish animals later into the year.



TARGET ROBUST RYEGRASS

Marathon LE	Perennial Ryegrass.....	6
Victorian	Perennial Ryegrass.....	10
Campeda	Sub Clover.....	4
Riverina/Trikkala	Sub Clover.....	4
Paradana	Balansa Clover	1
Sowing Rate		25kg/ha

Blend includes earlier maturing & robust ryegrass varieties with self regenerating mid maturing black and cream sub clovers for dryland use where persistence is more important or seasons don't support later maturing varieties. An excellent value perennial blend.



TARGET VALLEYS 650+

Bolton	Perennial Ryegrass.....	7.5
Jackal AR1	Perennial Ryegrass.....	7.5
Excellate	Cocksfoot	3.5
Riverina	Sub Clover (SlimCoat + Gaucho).....	3
Campeda	Sub Clover (SlimCoat + Gaucho).....	2.75
Quest	White Clover (SlimCoat + Gaucho).....	0.75
Sowing Rate		25kg/h

Suited to the fertile valleys and hills in Victoria and southern NSW. The sub clovers ensure persistence and good winter growth. The cocksfoot is summer active and provides growth when other grasses won't. The mid maturing ryegrasses and white clover will provide excellent growth in valleys where rainfall is more reliable and soil more fertile.

ENDOPHYTES

Endophytes are naturally occurring fungi that live between the cell walls, in some ryegrass cultivars. Different endophytes offer different levels of insect control.

This guide lists varieties without endophyte (Nil), with low endophyte infection (LE), novel endophyte (AR1 and NEA2) and standard (SE) endophyte. Nil, LE, AR1 and NEA2 are all very unlikely to cause staggers.

Standard endophyte can, and is likely to, cause staggers. Nil and AR1 endophytes have shown not to limit animal performance. NEA2 typically provides a high level of animal performance.

Standard endophyte is associated with performance issues like staggers, decreased growth rates, dags, and depressed milksolid production.

More information is available at <https://beeflambnz.com/knowledge-hub/PDF/endophyte-update.pdf>

Pasture Blend Boosters

For more information regarding SlimCoat refer to page 20.

Gaucha and Poncho Plus are insecticide seed treatments.



TARGET RYEGRASS S&B

Marathon LE	Perennial Ryegrass.....	6
Jackal AR1	Perennial Ryegrass.....	6
Riverina	Sub Clover (SlimCoat + Gaucha).....	4
Rosabrook	Sub Clover (SlimCoat + Gaucha).....	2
Narrakup	Sub Clover (SlimCoat + Gaucha).....	2
Sowing Rate	.....	20kg/ha

Persistent and productive perennial ryegrass and sub clover blend for sheep & beef producers in medium rainfall environments. Early mid maturing perennial ryegrasses without stagger causing endophyte and sub clovers with mid-late maturity to balance production and quality through the season.



TARGET FESCUE S&B

Finesse Q	Tall Fescue (Gaucha).....	12
White Clover	White Clover (SlimCoat + Gaucha).....	1
Strawberry Clover	(SlimCoat + Gaucha).....	1
Riverina	Sub Clover (SlimCoat + Gaucha).....	3
Rouse	Sub Clover (SlimCoat + Gaucha).....	3
Sowing Rate	.....	20kg/ha

Summer active fescue and clover blend for late season quality feed on heavy flats and paddocks often too wet to graze through winter and as a rotationally grazed irrigated summer pasture. Sub clovers selected for tolerance to wet winters with a very soft leafed summer active tall fescue.



TARGET COCKSFOOT S&B

Excellate	Cocksfoot (Gaucha).....	3
Summadorm	Cocksfoot (Gaucha).....	1.5
Yarck	Cocksfoot (Gaucha).....	1.5
Riverina	Sub Clover (SlimCoat + Gaucha).....	2
Narrakup	Sub Clover (SlimCoat + Gaucha).....	4
Sowing Rate	.....	12kg/ha

Cocksfoot and clover blend for long term pasture in well drained paddocks in medium but variable rainfall environments. Combination of summer active and winter active cocksfoot varieties and companion mid maturing sub clovers to balance production through the season and utilise moisture when it rains. Particularly well suited to sheep and beef operations, a complimentary alternative to Phalaris based pastures.



TARGET PHALARIS S&B

Holdfast GT	Phalaris (Gaucha).....	2
Mate	Phalaris (Gaucha).....	2
Australian	Phalaris (Gaucha).....	2
Riverina	Sub Clover (SlimCoat + Gaucha).....	3
Narrakup	Sub Clover (SlimCoat + Gaucha).....	1
Rosabrook	Sub Clover (SlimCoat + Gaucha).....	1
Sowing Rate	.....	10kg/ha

Highly persistent blend that when established can result in a productive pasture for many years. Good weed control and reasonable fertility are required prior to sowing. Blend suits most areas that receive 450mm+. Perennial Ryegrass can be added by direct drilling one season after establishment.

Tables: The Sheep and Beef (S&B) Target range applies the principal of right plant, right place, right purpose, right management.

Use the following table as a guide to choosing the right S&B blend, or combination of blends, for your paddock.

	Ryegrass	Cocksfoot
Rainfall	> 600mm (south coast >500 mm)	>500 mm (south coast >425 mm)
Season length	> 8 months	> 6 months
Drought tolerance	Low	High
Frost tolerance	High	Moderate
Soil Type	Well-drained medium to fine textured. Course textured soils tend to dry out too much during summer.	Well drained, sand or loam over clay or gravel
Soil fertility requirements	High	Moderate
Aluminium tolerance	Sensitive	Moderate
Waterlogging tolerance	Low to moderate	Low
Salt tolerance	Slight to moderate	Nil

	Phalaris	Tall Fescue
Rainfall	>500 mm (south coast >400 mm)	>500 mm (south coast >450 mm)
Season length	> 6 months	>6 months (Mediterranean types) >7 months (temperate types)
Drought tolerance	High	Moderate to high
Frost tolerance	High	High
Soil Type	Deep medium- to fine-textured, will grow on coarse-textured if clay within 30 cm of surface	Wide range, best suited to medium- to fine-textured soils
Soil fertility requirements	High	High
Aluminium tolerance	Moderate	Moderately sensitive
Waterlogging tolerance	High	High
Salt tolerance	Slight	Slight to moderate

This table summarises information from <https://researchlibrary.agric.wa.gov.au/cgi/viewcontent.cgi?filename=3&article=1000&context=bulletins&type=additional>

Performance Pasture Seed Blends

Short Term Blends



TARGET SHORT-TERM STAYER

Pinnacle	Annual Italian Ryegrass	12.5
Xtend	Italian Ryegrass	8.25
Rula	Hybrid Ryegrass	4.25
Sowing Rate	.....	25kg/ha

A fast establishing and quick growing short term ryegrass blend proving a combination of quick growth, late season quality and second year recovery. Being later flowering Rula extends quality and growth later into the season with added grazing recovery coming from the densely tillered Xtend Italian ryegrass. Clovers such as Persian or Red can be added to Stayer or the blend can be used to over-sow Headstart Summer forage blends in the Autumn.



TARGET FEED & FODDER

Pinnacle	Annual Italian Ryegrass	10.75
Xtend	Italian Ryegrass	10.75
Vista	Balansa Clover (SlimCoat + Gaucho)	1.5
Shaftal	Persian Clover (SlimCoat + Gaucho)	2
Sowing Rate	.....	25kg/ha

This combination of late maturing ryegrasses and annual clovers has produced outstanding results since 2007. It can be used in both irrigation and high rainfall environments, with the opportunity for numerous winter grazings and multiple silage or hay cuts. It has excellent regrowth potential, and will produce quality leafy feed into early summer with irrigation or spring rainfall.



TARGET AUTUMN ALLGRASS

Tetraploid	Annual Italian Ryegrass	12.5
Diploid	Italian Ryegrass	6.25
Diploid	Annual	6.25
Sowing Rate	.....	25kg/ha

An Ideal blend in oversowing paddocks that have a healthy population of clover, but little ryegrass. It is best sown early in the autumn to take advantage of its rapid establishment and high level of winter production. The late maturing ryegrasses will make excellent silage or hay, and offer the opportunity for quality regrowth into early summer.



TARGET HAY/SILAGE

Apex	Annual Ryegrass	6
RedGum 2	Annual Ryegrass	6
Storm	Annual Ryegrass	7
Paradana	Balansa clover	2
Shaftal	Persian clover	2
Arrowleaf	Arrowleaf clover	2
Sowing Rate	.....	25kg/ha

Excellent for grazing, hay, or silage production. This mix can be used in situations where a shortterm pasture is required, or as a productive break crop to clean up a run down paddock before returning it to permanent pasture. The blend contains early/mid maturing varieties that have only moderate regrowth after cutting. If full regrowth potential is required use TARGET Feed & Fodder.



TARGET SUB MIX

Riverina	Sub Clover (SlimCoat + Gaucho)	4
Yanco	Sub Clover (SlimCoat + Gaucho)	2.5
Redgum 2	Annual Ryegrass	5.5
Storm	Annual Ryegrass	6
Shaftal	Persian Clover (SlimCoat + Gaucho)	2
Sowing Rate	.....	20kg/ha

This mix has been used on dryland and short irrigation cycles in the Goulburn Valley and Southern NSW for over 10 years and has a good fit outside these areas. It is self-regenerating if let set seed. The mix has been used for hay, silage and grazing with excellent results.



TARGET OAT AND VETCH

Benetas	Purple Vetch	40
Forester	Oats	20
Sowing Rate	.....	60kg/ha

Target Oat and Vetch combines premium grazing and hay Oat Forester with very late flowering Benetas Purple Vetch at a ratio to allow Benetas to establish and trellis on fast establishing Forester Oats aiding the production and quality of the hay and silage crop. Suitable for a single hay or silage cut the varieties in the blend are slow maturing to maximise production in higher rainfall regions and allow cutting later in the season.

Performance Pasture Seed Blends

Short Term Blends *Continued.*



TARGET MEGA SILAGE

Forester	Oats.....	50
Peas	Peas.....	75
Sowing Rate	.....	125kg/ha

Target Mega Silage is an ideal ratio of oats and peas for silage and hay production. The Forester Oats provide a good trellis for the field peas to climb on, minimising the likelihood of lodging. The addition of peas to oats does not necessarily improve yield, but has a positive effect on protein content and palatability of the resulting product.



TARGET JUMPSTART

Vampire	Ryecorn.....	15
Marleigh	Oats.....	20
Pinnacle	Annual Italian Ryegrass.....	15
Sowing Rate	.....	50kg/ha

Blend for Autumn planting to get a Jumpstart on feed for Autumn and winter. Includes two of our most vigorous cereals for quick, robust dry-matter production for when feed is required as quickly as possible and, Pinnacle annual ryegrass to maintain grazing from the paddock into Spring and Summer. This grass and cereal blend can provide excellent weed competition that is useful in pasture renovation phase when coupled with cost effective broadleaf weed control options.



TARGET SUMMAGRAZE

Blue Gorilla	Forage Rape (Poncho Plus).....	2.5
Shirohie	Millet.....	10
Sowing Rate	.....	12.5kg/ha

Target Summagraze is a well-balanced blend of millet and brassica providing quick grazing with Blue Gorilla forage brassica improving the overall quality of the standing feed. The Blue Gorilla has been Poncho treated for added insect protection.

Specialty

Seed Blends

Specialised blends
for specific situations



TARGET MR (MEDIUM RAINFALL) HORSE MIX

Pasture Mix Components: Cocksfoot, Bluegrass, AusVic Ryegrass, Goulburn Sub Clover & Strawberry Clover

Use/Livestock Class:	Horse
Sowing Rate kg/Ha:	25-30kg
Rainfall:	600mm+
Establishment Speed:	Medium



Target DAM BANK MIX

Pasture Mix Components: Tall Fescue, Cocksfoot, Perennial Ryegrass, Ryecorn, Sub Clover, Strawberry Clover

Use/Livestock Class:	Soil Stabilisation
Sowing Rate kg/Ha:	50-75kg
Rainfall:	500mm+

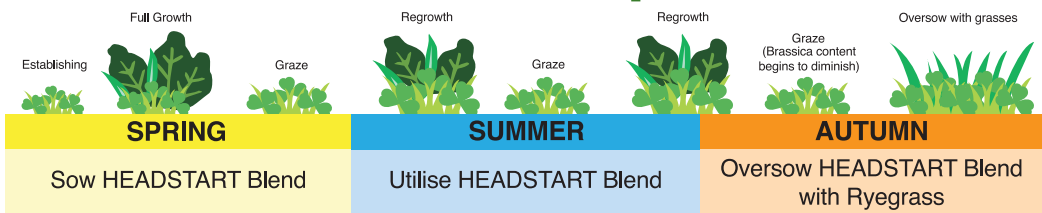
Headstart Forage Blends

Summer Forage Blends



HEADSTART blends are an innovative way of improving establishment of the perennial pasture herbs and/or clovers in the spring. The summer forage crop (e.g. brassica or millet) acts as a cover crop for the slower establishing species, which benefit from being sown into a warm, cultivated seedbed with seeds of a compatible size.

The HEADSTART Concept



The **HEADSTART** blends do more than just produce feed over the summer months. The bulk of the initial growth consists of the summer forage crop in the blend, however as the summer progresses, it becomes more evident that the herbs and clovers are making a sizeable contribution to the dry matter on offer.

In addition to increasing total crop production and regrowth potential, they contain high levels of minerals such as selenium, calcium, copper and sodium that are essential for animal performance.

In the first Autumn after sowing **HEADSTART** blend, many farmers have been impressed with the outstanding growth rates of the established chicory, plantain and white clover, which respond rapidly to the first rains. Oversowing the established herbs and clover with a short to medium term ryegrass will result in a high production pasture that can persist for 2-4 years.



HEADSTART WITH MILLET

Shirohie	Millet	14.5
Tonic	Plantain (Gaucho)	2.5
Puna	Chicory (Gaucho)	4
Beast/Haifa	White Clover (SlimCoat + Gaucho)	2
Quest	White Clover (SlimCoat + Gaucho)	2
Sow Rate		25kg/ha



HEADSTART WITH WINFRED

Winfred	Forage Rape (Poncho Plus)	1
Blue Gorilla	Forage Rape (Poncho Plus)	1
Tonic	Plantain (Gaucho)	1.6
Puna	Chicory (Gaucho)	3
Beast / Haifa	White Clover (SlimCoat + Gaucho)	0.7
Quest	White Clover (SlimCoat + Gaucho)	0.7
Sow Rate		8kg/ha



HEADSTART WITH KARAKA

Karaka	Leafy Turnip (Gaucho)	3
Tonic	Plantain (Gaucho)	1.5
Puna	Chicory (Gaucho)	3.5
Beast/Haifa	White Clover (SlimCoat+ Gaucho)	1
Quest	White Clover (SlimCoat + Gaucho)	1
Sow Rate		10kg/ha

Establishing A New Lawn

Six Steps to a New Lawn

**READY
TO
GROW**

The best time to sow a new lawn depends on the climate of the area. In some areas lawns can be sown all year round but the best time is usually spring through to early summer and late summer to mid-autumn.

The type of soil you have will be a major determining factor in how well your lawn establishes and persists.

- Heavy clay soils should be treated with gypsum at 1kg/square metre before sowing.
- If the soil is prone to waterlogging, most grasses will not persist, so be prepared to address the drainage before planting.
- "Hungry" soils need constant fertilising to support the grass.

6 STEPS TO A NEW LAWN

1. Choose the mix to suit your needs



LANDSCAPER

Perennial Ryegrass	36%
Bentgrass	55%
Fine Fescue	9%
Sowing rate	1kg/30m ²
Mowing height	3-5cm

A tough budget priced blend suited to most areas.



QUICKSTART

Turf Type Ryegrass	36%
Bentgrass	55%
Fine Fescue	9%
Sowing rate	1kg/30m ²
Mowing height	3-5cm

For fast establishment and good even colour, mows cleanly and is hard wearing.



LONGRUN

Turf Type Tall Fescue	43%
Bluegrass	57%
Sowing rate	1kg/25m ²
Mowing height	5-7cm

For a strong lawn that uses less water and is very hard wearing. Ideal for hotter North Victorian areas and Southern NSW.



SOLARWISE

Turf Type Tall Fescue	55%
Couch unhulled	45%
Sowing rate	1kg/25m ²
Mowing height	5-7cm

The most drought tolerant of the blends.



SHADE

Fine Fescue	60%
Bluegrass	40%
Sowing rate	1kg/25m ²
Mowing height	6-7cm



CARAVAN PARK

Turf type Ryegrass	57%
Couch unhulled	41%
Kikuyu	2%
Sowing rate	1kg/30m ²
Mowing height	3-5cm



SPORTS OVAL

Turf type Ryegrass	59%
Couch hulled	27%
Sowing rate	1kg/30m ²
Mowing height	3-5cm

2. Spraying & Rotary Hoeing

Spray out all existing weeds. Rotary hoe (now is a good time to incorporate gypsum or lime if needed) or dig the area. Disturbing soil can activate dormant weed seeds. Be prepared to spray weed killer 2 weeks after digging if you think it might be necessary.

3. Levelling & Raking

Level and rake the area and use a light roller if the soil is too loose or clods need to be pressed down.

4. Seeding & Fertilising

Spread the seed as evenly as possible and use lawn starter fertiliser at a rate of 1kg to 30 square metres, then very lightly rake to achieve good seed soil contact.

5. Watering

Frequent light watering promotes seed germination and rapid establishment. Don't allow the seed bed to become too dry or too waterlogged. As the grass begins to grow, decrease the frequency of watering but increase the amount of water each time. Normally a 2 month old lawn can be watered the same as an established lawn.

6. Mowing

Wait until the grass gets to 6-7cm high before the first mowing, and then take 2-3 mowings to get it to the desired height of 4cm (6-8cm for fescue lawns). Keep the mower blades sharp because this will lessen the harm to the young plants.



FArmour Blends

Cover crop and bio-fumigation seed blends for those looking to improve soil health, landscape function and supporting wildlife and beneficial insects.



FArmour WINTERMAX

Vampire Ryecorn Ryecorn	15
Mulgara Oats Oats	18
Tillage Radish Radish	5
Crimson Clover Crimson Clover	4
Tetraploid Annual Italian Ryegrass	8
Sowing Rate	50kg/ha

Widely used cover crop blend suited to planting from Late Summer through Winter where quick cover and grazing is the priority. Range of species included to maximise quick cover and forage production. Can be used between or before summer crop rotations for grazing, brown or green manuring.



FArmour SUMMERMAX

Millet	5
Sorghum	5
Tillage Radish Radish	4
Forage Rape	1
Sowing Rate	15kg/ha

Widely used cover crop blend suited to planting from late Spring through early-mid Summer where quick cover and grazing is the priority. Range of species included to maximise quick cover and forage production. Can be used between or before Winter crop rotations for grazing, brown or green manuring. Can be used as a break for perennial pastures & may help generate a feed wedge in the perennial pasture to carry into winter or simply as a specialist summer crop with some diversity to maximise the opportunity for summer feed or biomass.



FArmour COOLCOVER

Oats	10
Ryecorn	10
Purple Vetch	2.5
Diploid Annual Ryegrass	3.5
Winter Wheat	8
Forage Rape	2.5
Leafy Turnip	1
Linseed	1.5
Crimson Clover	1.5
Peas	5
Chicory	1
Tillage Radish	3.5
Sowing Rate	50kg/ha

Cool season cover crop blend where diversity is priority with a combination of annual grasses and broadleaf species. Suited to sowing from late Summer through winter. Can be successfully grazed or used for quick cover weather adding biodiversity, competing with weeds or building organic matter.



FArmour WARMCOVER

Millet	4
Sorghum	2
Tillage Radish Radish	2.6
Forage Rape	0.6
Freyr Sunnhemp	2.6
Buckwheat	2.6
Teff	1
Leafy Turnip	0.6
Sunflower	2.6
Linseed	1.4
Sowing Rate	20kg/ha

Warm season cover crop blend where diversity is priority with a combination of annual warm season grasses and broadleaf species. Suited to sowing from Spring through Summer. Can be successfully grazed or used for quick cover weather adding biodiversity, competing with weeds or building organic matter.



FArmour HDL

Arrowleaf Clover	2
Benetas Vetch	14
Balansa Clover	1
Persian Clover	2
Crimson Clover	3
White Clover	1
Antas Sub Clover	2
Sowing Rate	25kg/ha

High Density Legume blend for cool season/winter production of nitrogen fixing clover species for biomass that can be utilised for grazing, hay production and building organic matter. HDL blend provides opportunities for grass weed control and a grass free disease break in cropping rotations that will also benefit from residual Nitrogen.



Above: FArmour Warm Cover, February 14 2021, SW Vic. Courtesy of M Walsh.

FArmour Blends *Continued*

Cover crop and bio-fumigation seed blends for those looking to improve soil health, landscape function and supporting wildlife and beneficial insects.



FArmour SUNNBIOSYS

Millet	.....	3
Sorghum	.....	2
Tillage Radish	Radish.....	3
Forage Rape	.....	1
Freyr	Sunn Hemp.....	6
Sowing Rate	.....	15kg/ha

Summer cover crop blend featuring Freyr Sunn Hemp and a range of species suited to warm season production. Nitrogen fixing and scavenging broadleaf species and annual summer grasses provides for grazing opportunities, diversity and organic matter production. Premium blend of species to make the most of the window between Winter crops in warmer climates and provide diversity into monoculture rotations.

FArmour NITRO

Freyr	Sunn Hemp.....	10
Soybean	.....	20
CowPea	.....	10
LabLab	.....	10
Sowing Rate	.....	50kg/ha

Legume blend for warm season/Summer production of nitrogen fixing legume species for biomass that can be utilised for grazing, hay production and building organic matter. FArmour Nitro blend provides opportunities for grass weed control and a grass free pest and disease break in cropping rotations that will also benefit from residual Nitrogen.

FArmour BIOFUME

Tillage Radish	Radish.....	5
Pantha	Mustard.....	5
Falkor	Mustard.....	5
Sowing Rate	.....	15kg/ha

Robust blend including Radish and Mustard for bio fumigation operations in horticultural settings. Suited to sowing from late Summer through early Spring, mulching and incorporating or brown manuring as pest and disease break while building soil organic matter.

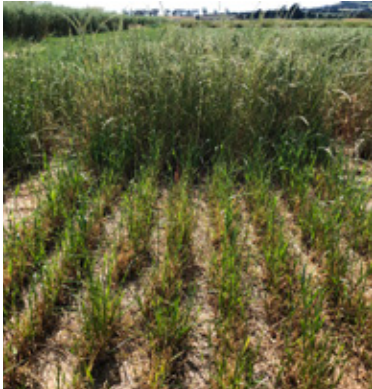
FArmour blends	Sowing Rate kg/ha	Suggested Planting Window												Grazing /Forage	Quick Cover	Diversity	Erosion Protection	Manure	Bio-fume
		Summer			Autumn			Winter			Spring								
WinterMax	40-60													XXX	XX	XX	XXX	X	
SummerMax	12.5-17.5													XXX	XX	XX	XX	X	
Cool Cover	50-75													XX	XXX	XXX	XX	XX	
WarmCover	15-25													XX	XXX	XXX	XXX	XX	
HDL	20-30													XXX	X	X		XXX	
Nitro	40-60													XX	XX	X		XXX	
Sunnbiosys	15-25													XX	XXX	XX	XX	XX	
Biofume	10-20														XX		X	XX	XXX

X = suitability for objective. Maximum rating is 3.

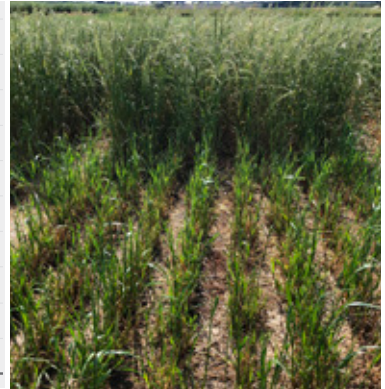
PASTURE BLENDS

RYEGRASS

OTHER GRASSES

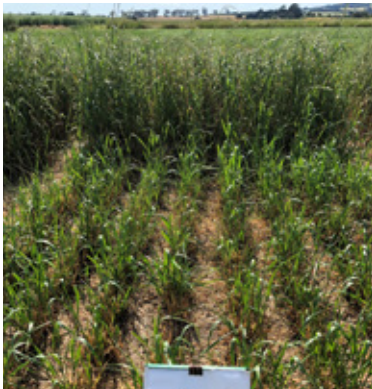


Month(s)	Percentage
May/April	25%
June	25%
August/July	45%



Amount of, and colour of seed head

Quality and quantity of regrowth



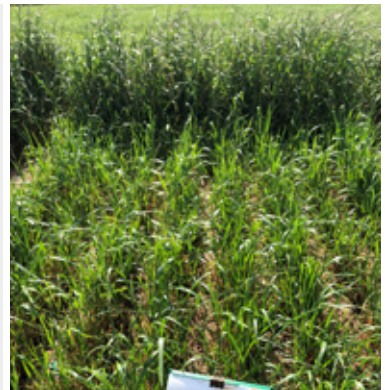
Month(s)	Range	Color	Icon
August/July	50-90	Dark Green	Snowflake
June	30-40	Grey	-
May/April	0-25	Yellow	Maple Leaf



Amount of, and colour of seed head

Quality and quantity of regrowth

Month	Percentage
May/April	15%
June	22%
August/July	43%



Amount of, and colour of seed head

Quality and quantity of regrowth



YOU CAN CONTINUE TO TRUST AUSTRALIAN FAMILY BUSINESS

AGF Seeds has expanded with the acquisition of another Australian family-owned business, Smyth Seeds, Benalla.

The purchase marks the first time AGF Seeds has grown beyond its home base of Smeaton, near Ballarat.

AGF Seeds will maintain its main processing, packing, warehouse and administration facility at Smeaton, while the former Smyth Seeds premises in Benalla will remain open as a warehouse, blending, packing and distribution point.

AGF Seeds director David Toose said Smyth Seeds was a great fit and brought together two 100-percent Australian family-owned businesses with decades of experience.

Mr Toose said Smyth Seeds had been a respected major player in the Australian seed industry for nearly 70 years.

"When Smyth Seeds announced their business was for sale AGF was immediately interested as the Smyth brand was well known for the quality of their products and their knowledge and it seemed to be a good fit as we are similar companies with similar ethics and we have been looking to expand our marketing opportunities," he said.

"Smyth Seeds has been a good contributor to the seed industry for nearly 70 years and we look forward to continuing that tradition."

AGF Seeds has a history of three generations of seed producers, processors and more recently, seed marketing to bring the wide world of seed to Australian farmers.

"We have capacity to do more production, expand the product range and this acquisition will help us to distribute product into north-east Victoria," Mr Toose said.

"It will improve access to products for existing AGF Seeds clients while continuing to serve Smyth Seeds clients. "We already have sales people in the area and this will give them a base and inventory."

Mr Toose said the purchase was an exciting time for the company and the Australian seed industry.

"This is our first foray away from our home base with another facility in a different location," he said.

"The market is becoming dominated by international companies so we're excited by this new chapter in our history."

AGF Seeds general manager Andrew McNaughton said the expansion would be good for customers of both companies and improve timelines in getting orders to customers.

Smyth Seeds founder Mick Smyth was a founding member of the Seed Industry Association of Australia – now the Australian Seed Federation – and the now-defunct Seed Merchants Association of Victoria.

His son, Smyth Seeds director Mike Smyth, continued the business with his other brother John, who retired about six years ago as a life member of the Australian Seed Federation.

Mike Smyth said he was pleased that the company was going to a like-minded family business.

"We're particularly pleased with the people we've sold it to," he said. "We've known David for decades and we see AGF as a company of similar background."

Mr Smyth said Smyth Seeds had enjoyed a long history as independent traders of quality pasture seed.

"It's 70 years this year that our father started in the seed industry," he said. "John and I have been involved in the seed industry all our working lives."

Smyth Seed's last day was October 29. John and Mike will continue to run a cattle farm in the Benalla region.

The company has been a long-standing member of the Grassland Society of Southern Australia and sponsor of the Benalla A&P Show.

Both AGF Seeds and Smyth Seeds are accredited members of the Australian Seed Federation, and AGF Seeds is carrying on a long history of seed production in Smeaton and the surrounding area.

Image: Left, Mike Smyth and right, David Toose, AGF Seeds Director.

Ryegrass

PERENNIAL RYEGRASS

Lolium perenne

Perennial ryegrass is the backbone of most temperate permanent pastures because it is the most efficient and cost effective method of supplying a highly nutritious, long term feed option for any grazing enterprise. Cultivars vary greatly in maturity, growth habit, resistance to disease and rainfall requirements with a variety available to suit many regions of southern Australia.

Perennial ryegrass pastures can persist for more than 5 years with minimal intervention, and therefore cost.

Year round growth is achieved with sufficient moisture and management and surpluses can be conserved as hay or silage. Selective herbicides are readily available for broadleaf weed control further improving persistence of the variety.

Rainfall: 500mm+ or Irrigation depending on cultivar

Seed count: 500,000/kg (d). 250,000/kg (t)

Sowing rate: 8kg/Ha - 30kg/Ha depending on seed size and rainfall/irrigation

SHOULD I CHOOSE A DIPLOID (d) OR TETRAPLOID (t) RYEGRASS?

When selecting a ryegrass either by itself or in a blend, the type of soil you have and the intensity of the grazing you intend to do are key to making a choice of either diploid or tetraploid varieties.

What is the difference?

- Diploids tolerate poorer and less fertile soils, dry conditions and closer grazing (2-5cm post grazing)
- Tetraploids require higher fertility soils, moist or irrigated conditions and lax grazing (5-7cm post grazing)

For your easy reference in this publication, we have marked all ryegrass varieties with either (d) for diploid or (t) for tetraploid.

BOLTON (d)

A cost effective early maturing diploid with growth peaks in winter and early spring. Bolton was bred specifically for the sheep beef market as a replacement for Victorian, to be more productive in low fertility soils. There are more suitable varieties than Bolton for dairy pastures.

Rainfall: 550 mm+

Endophyte: SE

MARATHON LE (d)

Early Mid maturing variety suited to sheep and beef operations in medium rainfall environments. Can be used with other perennial grasses as a low endophyte component to reduce the risk of losses associated with livestock staggers. An economical permanent pasture option.

Rainfall: 550 mm+

Endophyte: Low Endophyte'

AVALON AR1 (d)

A mid maturing variety that has good late season growth and improved disease resistance. Avalon suits dairy and high-end beef grazing enterprises.

Rainfall: 650 mm+

Endophyte: AR1

JACKAL AR 1 (d)

Mid maturity highly productive perennial ryegrass for inclusion in medium to high rainfall high performance pasture blends where tiller density and strong winter growth is required.

Rainfall: 650 mm+

Endophyte: AR1

HUSTLE AR 1 (d)

Mid-long maturity perennial ryegrass suited to a range of high performance grazing systems where growth through winter is important. The upright habit ensures compatibility with other pasture species.

Rainfall: 650 mm+

Endophyte: AR1

IMPACT 2 (d)

A late maturing densely tillered variety with strong autumn-spring growth. Impact 2 suits high performance grazing enterprises.

Rainfall: 650mm+

Endophyte: NEA2

TENACIOUS (t)

Low endophyte late maturing tetraploid perennial suited to longer season environments and areas where late season production and quality is most important. Tenacious is well suited to beef and dairy operations and lamb finishing where quality feed is required late into the year.

Rainfall: 650 mm+

Endophyte: Nil Endophyte

BEALEY (t)

Bealey is a very late maturing palatable tetraploid with excellent feed quality, long season performance and persistence. It offers excellent insect tolerance and performs well in temperate regions.

Rainfall: 650 mm+

Endophyte: NEA2



Above: Tim Brown discussing Perennial ryegrass at the Smeaton trial site tour November 10th 2021.

Ryegrass

Continued

HYBRID RYEGRASS

Lolium boucheanum syn

Lolium hybridum

Crossing perennial ryegrass with Italian ryegrass develops hybrid ryegrasses. The resulting types range from those that resemble Italian ryegrass (known as short-rotation ryegrasses), with high yields and having larger leaves, persisting from 1-4 years; to types almost as persistent as perennial ryegrass (known as long-rotation ryegrasses). Hybrid ryegrass can be used in situations where you require some persistence 2-4 years, but don't want to compromise winter growth. For example, hybrids can be used to oversow perennial pastures to bulk up feed and extend growth before a renovation is undertaken. They are able to establish well due to their fast early growth and can compete with established plants.

Rainfall: 650mm+ or Irrigation
 Seed count: 500,000/kg diploids
 250,000/kg tetraploids
 Sowing rate: 5-15kg/Ha Mixes.
 20-30kg/Ha as Sole Grass

RULA (t)

A late-flowering long-rotation type with strong establishment vigour. Rula provides value in a number of situations. It is often used as the sole grass in a potential 4 year pasture. It has a fit for a short term pasture in environments where Italians are unreliable. It also can be used to increase early production in perennial blends, eg. Target Finisher. Increasing the growing season in short term blends, is another place for Rula, eg. Target Short-term Stayer. High year-round total forage yield, combined with good persistence and resistance to rust.

Rainfall: 650mm+
 Endophyte: No Endophyte

ITALIAN RYEGRASS

Italian ryegrasses are a highly nutritious and productive short term pasture option for areas with mild summers and reliable

rainfall or irrigation. Generally used for the production of quality hay or silage, Italians may also be used to oversow depleted perennial pastures for fast growth and short term improvement. Italian ryegrasses can persist for up to 3 years but will generally thin out over hot summers requiring annual oversowing to maximise benefits.

Rainfall: 450mm+ or Irrigation
 (Depending on cultivar)
 Seed count: 500,000/kg diploids.
 260,000/kg tetraploids
 Sowing rate: 15-30kg/Ha (Depending on seed size and rainfall/irrigation)

XTEND (d)

An Italian ryegrass with sound winter performance and well noted standability though the season. An upright habit and mid maturity makes Xtend a robust and durable 1-2 year pasture grass that holds density deep into the season. Currently used across eastern Australia in Sheep, Beef, Dairy and hay production operations.

Rainfall: 650mm+

ACCELERATE 2 (d)

Accelerate 2 is a highly winter active Italian ryegrass, developed in Europe from a number of highly successful Australian and New Zealand bred varieties. With excellent seedling vigour, it suitable for sowing into either clean paddocks or over-sowing into run down or sub-tropical pastures.

Rainfall: 650mm+

TEMPO (d)

Tempo is the newest diploid Italian from Barenbrug. Tempo offers faster establishment, improved winter growth and high pasture yields. Tempo is suitable for grazing, hay or silage and will carry-through into a second year under favourable conditions.

Rainfall: 650mm+

ANNUAL RYEGRASS

Annual ryegrasses will persist for one year and are ideal for a short term winter crop. With rapid establishment and excellent winter growth, this variety is best used for multiple grazings and for the production of hay or silage.

Rainfall: 450mm+ or Irrigation
 Seed count: 500,000/kg diploid.
 250,000/kg tetraploids
 Sowing rate: 15-30kg/Ha Depending on seed size and rainfall/irrigation)

STORM (d)

Early heading annual suited to dryland farming systems where fast establishment and quick feed is important. A robust variety that can regenerate from seed if left to mature or fits nicely into earlier cut silage in preparation for summer cropping.

Rainfall: 450mm+

REDGUM 2 (t)

Quality Assurance practices during seed production ensures consistent quality is guaranteed in this variety. Rapid establishment, early maturity and improved grazing and hay production are the main benefits of this low cost annual tetraploid.

Rainfall: 450mm+

DEVOUR (t)

Mid maturing annual suited to use across a broad range of end uses. A multi use economical variety with sound performance.

Rainfall: 450mm+

APEX (t)

Apex is a highlight in our portfolio, for premium Autumn and Winter growth. It can be used on its own, or as a valuable component eg. the Target Hay/Silage blend. Very fast establishing, has exceptional growth over autumn, winter and spring combined with good disease resistance. It is ideally suited as a winter break crop between maize and other crops. Page 14 demonstrates value on farm.

Rainfall: 450mm+

PINNACLE (t)

The Pinnacle of Annual Ryegrasses in Australia. Top performer in Dairy Australia Forage Value Index Pinnacle performs very well through the season including through Winter and holds density late into the season. Pinnacle is late maturing and where moisture permits can recover post hay/silage cutting to produce high quality feed very late into the season.

Rainfall: 450mm+



AGF's general manager and warehouse team in front of the seed treatment plant. Photo: SUPPLIED.

Making the positive move to Pinnacle

DAIRY farmer, Aran Gleeson, just has to look over his paddocks to see the success of Pinnacle.

About 18 months ago, Aran sold his beef cattle and went back into dairy farming at Illowa near Warramboul and was looking to make as much home-grown grass as possible.

"We're on red volcanic dirt which doesn't hold permanent ryegrass on the dryland so we want to grow as much and as quick as possible," he said. An on-farm trial run by Bade Ness Rural was enough to convince Aran to use Pinnacle, which is marketed by AGF Seeds.

"We had about five different annuals in the trial and every time you'd go to put the cows in there, the Pinnacle plot was always thicker with more feed on it," Aran said.

"It's usually hard to pick different grasses, but you could visually see more growth every time with Pinnacle."

Not knowing how the season would go, this year

Aran added Gaucho insecticide to guard against insect damage and to act as a protector if weather conditions weren't ideal.

"If the rain shut off for a while and we got a dry spell, our agronomist thought using Gaucho would hold it for a lot longer," he said.

"It was definitely up out of the ground very quickly after we sowed it. Within seven days it was up in nice rows and we kept getting really good growth from it."

While returning to the dairy industry, Aran continued his agricultural contracting business where he was happy to spread the word about Pinnacle.

"I do the contracting for a farmer down the road," he said.

"He used another product but I showed him Pinnacle and now he uses it on everything."

"It's looking really good. These last three seasons, I don't think we could do any better."

WESTERN DISTRICT FARMER June 2021

Pinnacle is ranked No. 1 in the Forage Value Index

WESTERN DISTRICT FARMER May 2021

Pinnacle tops new forage value index

PINNACLE is thriving in south-west Victoria, with a new independent assessment confirming it has the best potential economic value of any annual ryegrass cultivar.

The first annual ryegrass Forage Value Index (FVI) release has highlighted the success of Pinnacle in south-west Victoria and other regions around south-east Australia.

The FVI, released by Dairy Australia, has been significantly expanded in 2021 to include annual ryegrass and Italian ryegrass for the first time, in addition to the annual update of the perennial ryegrass FVI.

Pinnacle, marketed by AGF Seeds, was the star of the annual ryegrass index, achieving the top score of 288 in south-west Victoria – 25 points ahead of its nearest rival – and a green colour ranking.

Pinnacle also received a green colour ranking and topped the points score in Gippsland, northern Victoria and Tasmania.

The green colour indicates cultivars

that have performed the best in each region and have the most potential to contribute to operating profit.

The FVI rankings are based on yield from independent trials run by the Pasture Trial Network (PTN).

To be included in the FVI database, each cultivar must have data from at least three trials conducted using strict industry protocols.

Pinnacle was included in seven PTN trials.

AGF Seeds product development manager, Tim Brown said topping the independent evaluations in each region was proof of Pinnacle's yield ability and durability.

"The independent information coming out of trials run by the Pasture Trial Network is of great value for farmers," Mr Brown said.

"Pinnacle's success reflects its high yield ability and durability that helps farmers to minimise risk and maximise potential growth."

"With Pinnacle, you get late season quality and production but that doesn't come at a cost of autumn or winter production."



PINNACLE ryegrass flowers late and provides quality regrowth. Photo: SUPPLIED.

WESTERN DISTRICT FARMER April 2021

AGF Seeds - pinnacle focused

A NEW independent trial site at Killarney that tests pasture varieties not commonly used in the region shows that Pinnacle stands out in local conditions.

The site run by Bade Ness Rural sources seeds from various companies with a focus on showing farmers what new varieties could work locally.

Bade Ness Rural agronomist, Paul Smith said the site had been operating for two years. During the first year, 21 different perennial ryegrasses commonly used in the region were planted and in Autumn 2020, 40 different cultivars of alternative types of grasses including phalaris, fescue, cocksfoot, prairie and brome grasses were trialled.

This autumn hybrid ryegrasses and Italian perennial crosses are being trialled. In spring 2020, 24 different varieties of summer crops, including rape, turnips, hybrids were planted and replicated twice.

While measured with a probe, the main reviews are visual to check persistence and growth patterns. It is also a grazing site, mostly used by sheep but occasionally smaller cows to test for palatability.

The site generally uses 10x1.5-metre-wide plots, often replicated in different areas of the paddock.

Pinnacle performed as promised in local conditions when trialled against other varieties.

"The results were extremely positive with higher yield and stronger performance over the medium and long-term growing season," Mr. Smith said.

"Pinnacle has excellent early growth for autumn and winter feed, and with a season like we have just had it will keep growing right through if moisture is there. Pinnacle makes great silage and hay as it stays very leafy without becoming stalky. It makes a farmers' life easier, by eliminating the need for early, mid or late heading varieties."

"We're looking at all new varieties from different companies so we can see what is best for local farmers," he said.

Other Grasses

COCKSFOOT

Dactylis glomerata

A deep-rooted perennial grass of high to moderate drought tolerance (depending on cultivar), native to Northern Europe and the Mediterranean regions. The first varieties were introduced to Australia from Northern Africa in the 1930's. The perceived lack of quality has been an issue for some time. Some new cultivars are of higher quality. Persistence and quality can be further improved by attention to grazing management. There are two distinct types: Northern European types that are summer active and Mediterranean types that are summer dormant. Cocksfoot needs reasonably well-drained soils to persist, and will tolerate soils of very low pH.

Rainfall: 350mm – 750mm

Seed count: 1,500,000/kg

Sowing rate: 1-3kg/Ha Mixes

5-8kg/Ha as Sole Grass

SUMMADORM

Summadorm is a hardy deep rooted Mediterranean type cocksfoot, demonstrating excellent summer dormancy compared to other Mediterranean types, and is proven to show increased persistence in medium rainfall zones. It also continues to produce strong winter yields, assisting in filling the winter and early spring feed gap.

Rainfall: 400-550mm+

YARCK

A Mediterranean x European type with vigorous seedling establishment, high winter growth and softer, more palatable leaves. Yarck has the ability to respond and grow with summer rainfall.

Rainfall: 400mm+

EXCELATE

A late flowering variety with prostrate, growth habit. Bred for a low crown. It has proven to be a durable variety, with a fit in medium to high rainfall zones in sheep and beef pastures.

Rainfall: 500mm+

LAZULY

A late flowering variety with semi erect growth habit, high palatability and persistence. Lazuly is suitable for sheep, beef and dairy systems, being softer and more palatable to animals.

Rainfall: 600mm+

PRAIRIE GRASS

Bromus willdenowii

Bromes are deep-rooted grasses; they are very heat and drought tolerant and produce high quality nil endophyte pastures. They prefer free-draining soils and are intolerant of pugging and being waterlogged. The bromes have been split into three distinct types; 1. Prairie Grass (high production over a short period) 2. Pasture Brome (medium term pasture) 3. Grazing Brome (more persistent long term pasture)

Seed count: 90,000 /kg

Sowing rate: 30-40kg/ha

JERONIMO

Jeronimo is a new highly winter active prairie grass with a broad fit for pasture systems where rotational grazing is used. It has similar maturity to Matua and has excellent capacity for reseeded into pasture swards. It has much improved autumn/ winter activity to ensure more feed when it is most needed.

Rainfall: 650mm+

TALL FESCUE

Festuca arundinacea

A deep-rooted perennial grass native to Europe, the Mediterranean region, and Asia. It is suited to soils of medium to high fertility, will tolerate waterlogging and moderately saline conditions. There are two distinctively different types, summer active and summer dormant. Summer active tall fescues have the ability to out produce perennial ryegrass during summer and require periodic summer rainfall or irrigation. Summer dormant types have the ability to persist in areas of very low rainfall.

Rainfall: 350-600mm+ or Irrigation
Seed count: 410,000/kg
Sowing rate: 20-30kg/Ha (sole) or 8-20kg/Ha (in a mixed pasture)

SUMMER ACTIVE

(CONTINENTAL) TYPES

FINESSE-Q

Finesse-Q is a high yielding, densely tillered, soft-leaf fescue with semi-late heading. It is extremely persistent due to its dense nature and has no fescue endophyte. It has an intermediate growth pattern better suited to much of Australia's oceanic climate, and has performed well in trials sown here in 2006. Its tiller density and high leaf quality make it well suited to dairy, beef and sheep. Its lack of endophyte makes it also suited to grazing by horses, goats and alpacas.

Rainfall: 600mm+

Endophyte: Nil

SUMMER DORMANT

(MEDITERRANEAN) TYPES

PROSPER

A Mediterranean tall fescue with high winter production and summer dormancy. It is ideal for low summer rainfall areas and shows good persistence.

Rainfall: 350mm+

Endophyte: Nil

PHALARIS

Phalaris aquatica

Phalaris is a deep-rooted perennial grass native to the Mediterranean region, once established it is drought tolerant and persistent. Quality can be maintained through correct management. Phalaris has very low seedling vigour and care should be taken at establishment. It will persist on a wide range of soil types including heavy waterlogged soils. Phalaris is the most sensitive of the temperate grasses to acid soils, and performs best on neutral soils. Cultivars available include both winter active and winter dormant varieties.

Rainfall: 425mm+

Seed count: 650,000 p/kg

Sowing rate: 3-7kg/Ha

SEMI WINTER DORMANT

AUSTRALIAN

The original phalaris in Australia. Once established it is very persistent. Needs to be grazed heavily to maintain feed value.

Rainfall: 425mm

WINTER ACTIVE TYPES

ADVANCE AT

A new Phalaris cultivar bred for increased tolerance to acid soils. Advance AT can tolerate pH > 3.8 (CaCl2) and exchangeable aluminium of 20-50%.

Rainfall: 450mm+

MATE

Mate is a highly winter active phalaris bred in Argentina with excellent autumn to spring forage production and good persistence. It has good seedling vigour and high autumn/ winter forage yields. Mate is about 2 weeks earlier flowering than Holdfast. It can also be sown as the sole perennial grass with sub clover, or in a mix with summer active cocksfoot varieties for all year round feed. It is also suited to sowing at 0.5-1kg/ha with lucerne.

Rainfall: 450mm+

HOLDFAST GT

Phalaris bred for increased grazing tolerance over Holdfast Phalaris. Has excellent winter activity and seedling vigour with exceptional dry matter production. Adapted to a greater range of soil types than holdfast.

Rainfall 450mm+

THERE IS MORE SEED IN THE BAG

You can benefit from higher plant densities, or reduced sowing rates, and improved handling with our innovative polymer based technology, we call "SlimCoat".

SlimCoat uses a purposefully selected polymer to encapsulate the active ingredients tightly around the seed, and our cold application process protects the rhizobia.

This is another example of our drive for continual improvement, in this case, negating the need for high weight gain build-up coats.

Ask for this new technology to get more seed in the bag,

ask for

SlimCoat



Left: Slimcoat sub clover **Right:** Coated sub clover.

In just 16kg of SlimCoat seed, you get the same seed count as in 25kg of conventionally coated seed.

SUBTERRANEAN CLOVER

Trifolium subterraneum

A self-regenerating annual that gets its name from its ability to bury its seed. Native to the Mediterranean region, sub clovers grow on a wide range of soil types and varying rainfall, from 250mm to in excess of 750mm. Sub clovers are divided into three main sub-species, with large variations.

SUB-SPECIES SUBTERRANEAN

These black-seeded varieties can tolerate a wide range of acid soils, mostly well drained.
Seed count: 133,000 – 250,000/kg
Sowing rate: 4-8kg/Ha

TAMMIN

Tammin is a more persistent and resilient early flowering sub clover developed for cropping rotations in low-medium rainfall areas, novel trait of RLEM cotyledon resistance and much higher hard seededness than other cultivars.
Rainfall: 500-700mm

CAMPEDA

Campeda is a black seeded sub clover that demonstrates a prostrate to semi erect growth habit and persists well on various soil types. It has mid season maturity which makes it adaptable to medium and high rainfall environments.

Rainfall: 500-700mm

NARRIKUP

A vigorous mid-late season cultivar. It is best suited to well-drained, moderately acid soils in areas where the growing season extends to mid-November. Emerging seedlings suffer less damage from red-legged earth mite than older subterranean clovers.

Rainfall: 500-700mm

ROSABROOK

Developed as a replacement for cv. Denmark with improved cotyledon tolerance to red-legged earth mite (RLEM). Suited to well drained, moderately acid soils in areas of southern Australia where the growing season extends to mid-late November.

Rainfall: 650 mm+

SUB-SPECIES YANNINICUM

The varieties of this sub-species are adapted to acid soils subject to winter water logging, but also perform well in well drained soils.

Seed count: 90,000 – 120,000/kg

Sowing rate: 6-10kg/Ha

RIVERINA

Early mid-season alternative for Trikkala. Riverina provides greater autumn and winter production, with a good level of hard seed. It provides high resistance to all three strains of Phytophthora root rot.

Rainfall: 450mm+

YANCO

A mid-season sub-clover. It is well adapted to moderately acidic soils prone to waterlogging and to loamy and clay soils with good water retention. Its upright, vigorous growth makes it suited to hay and silage production, as well as to grazing by cattle or sheep.

Rainfall: 450mm+

Annual Clovers and Medics

Continued

ROUSE

Rouse is a mid to late-season cultivar. Excellent overall forage yield with very high seed yield leading to improved seedling regeneration over comparative cultivars.

Rainfall: 550mm+

SUB-SPECIES BRACHYCALYCINUM

Purplish-black seeded variety best suited for neutral to alkaline soils.

Seed count: 77,000 – 140,000/kg

Sowing rate: 8-12kg/Ha

ANTAS

Black seeded brachy sub clover Antas demonstrates a prostrate to semi erect growth habit and persists well on various soil types. It has mid to late season maturity and is suited to medium to high rainfall environments.

Rainfall 500-750mm+

TARLEE

Tarlee is a mid-late season brachy sub clover and is well adapted to neutral to alkaline soils but will perform well in moderately acidic soils (pH Cacl2 6.5-8.5). It is best suited to areas with approximate rainfall between 500-775mm.

Rainfall 500-750mm+

BALANSA CLOVER

Trifolium balansa

Originally introduced from Turkey, it is a hard seeded self-regenerating annual that is capable of producing an abundance of seed that can quite often find its way into a system via hay. Will tolerate very heavy water logged soils and soils of moderate salinity, with a pH from acid to alkaline.

Rainfall: 400mm - 700mm

Seed count: 1,400,000/kg approx.
(Varies between cultivars)

Sowing rate: 1-3kg/Ha Mixes
3-5kg/Ha Pure Stands

PARADANA

Tolerates relatively severe waterlogging. High levels of hard seed. Good growth during late winter and spring. Good hay production.

Rainfall: 450mm+

VISTA

High performance variety with good tolerance of waterlogging and moderate tolerance of salinity. Later maturing than Paradana, with excellent late spring production. Ideal for grazing or hay/silage.

Rainfall: 550mm+

ARROWLEAF CLOVER

Trifolium vesiculosum

Originated from the Mediterranean region. Suited to well-drained soils, slightly acid to slightly alkaline. A self-regenerating annual clover with thick hollow stems, being an aerial seeder it owes its self-regeneration to its high level of hard seed. Commonly provides late spring/early summer growth. Erect growth habit is ideal for cattle, as it is not known to cause bloat.

Rainfall: 450mm+

Seed count: 880,000/kg

Sowing rate: 2-8kg/Ha Mixes
10-15kg/Ha Pure Stands

PERSIAN CLOVER

Trifolium resupinatum

An annual clover native to the Middle East, tolerates a range of soil conditions including wet, slightly salty and slightly acid to alkaline. If sown in early autumn can be quite productive in winter, with a high level of spring growth. Persian clovers are divided into two main subspecies. Sub-species majus will grow well into summer under irrigation, producing high quality forage.

Rainfall: 350mm min and higher or irrigation
(depends on cultivar chosen)

Seed count: 800,000/kg (majus)
1,400,000/kg (resupinatum)

Sowing rate: 2-4kg/Ha Mixes
4-5kg/Ha Dryland
6-8kg/Ha High Rainfall or Irrigation

SUB-SPECIES MAJUS

Characterised by being nearly 100% soft seeded, therefore needs to be re-sown each year, majus are of very high nutritive value.

ENRICH

One-year forage crop. Soft seeded, erect plant with thick fleshy hollow stems and late season maturity. Tolerates various soil types, waterlogging and mild salinity.

Rainfall: 500mm+

SUB-SPECIES RESUPINATUM

This sub-species has very high levels of hard seed and, if let go to seed, is a selfregenerating annual.

PROLIFIC

Very early season, hard seeded cultivar for dryer areas. Prolific is suited to a range of soils, tolerates heavy soils, waterlogging and mild salinity. Can be used in rotation with crops, in low rainfall cropping zones or in perennial pasture mixes.

Rainfall: 350mm+

CRIMSON CLOVER

Trifolium incarnatum

A native to southern Europe, a soft seeded annual clover that is very quick to establish. Very useful autumn and winter growth because of its flush in early spring. A worthwhile addition for silage crops. Suited to a wide range of soil types, from sandy to heavy textured, and soils of very low to neutral pH. It has a very distinctive brilliant red flower.

Rainfall: 450mm+

Seed count: 250,000-280,000/kg

Sowing rate: 1-4kg/Ha mixes
8-10kg/Ha alone

ANNUAL MEDIC

Medicago spp.

A self-regenerating annual. Medic clovers grow on a wide range of soil types and varying rainfall. There are seven species commonly sown in Australian farming systems, with large variations.

Seed count: 60,000 – 500,000/kg

Sowing rate: 3-5kg/ha mixes
4-10kg/Ha alone

JESTER BARREL MEDIC

Jester (Medicago truncatula) is an aphid resistant replacement variety for Jemalong. Jester will provide increased herbage production and pest resistance for low to medium rainfall areas with alkaline soils.

Rainfall: 350-450mm+

SULTAN SU

Sultan-SU is an early flowering, aphid resistant barrel medic (Medicago truncatula) which is tolerant of sulfonylurea (SU) herbicide residues. Sultan-SU's tolerance to SU will enable farmers in low-medium rainfall areas to successfully grow barrel medic pastures in the presence of SU herbicide residues resulting from applications to prior crops.

Rainfall: 275-450mm+

LUCERNE

Medicago sativa

Lucerne is a deep tap-rooted plant with excellent feed quality and drought tolerance. Its main period of growth is from spring through to autumn and it may persist for over ten years.

All Lucerne varieties are summer-active, however they are divided into one of four groups depending on their level of winter dormancy:

- highly winter-active (8-10 rating)
- winter-active (6-7 rating)
- semi winter dormant (4-5 rating)
- winter dormant (1-3 rating).

The choice of cultivar should depend on its intended use and the environment into which it will be sown. For example:

1. Highly winter active varieties should not be sown into areas prone to heavy frosts.
2. Varieties intended for dual purpose use should come from the winter active range.
3. If sowing for hay production only, in a region that experiences heavy frosts, a winter/semi winter dormant variety would be best suited.

Pest and disease tolerance is also an important consideration. Lucernes can be affected by fungal diseases such as phytophthora (root rot) and anthracnose (crown rot), as well as by bacterial wilt and fusarium wilt.

Aphid resistance is also a desirable trait in a lucerne variety.

Check the table below to find a Lucerne variety that suits you.

Rainfall: 400mm+ or Irrigation
Seed count: 440,000 to 500,000/kg
Sowing rate: 3-10kg/ha dryland or 10-20kg/ha irrigation

CLOVERS

ADDING BALANCE AND QUALITY TO YOUR PASTURE

WHITE CLOVER

Trifolium repens

A perennial clover native to Europe, which owes its perennial nature to its stolon activity. The original plant will send out stolons (or runners) that root down at the nodes to form daughter plants. These daughter plants will eventually break away and become independent plants. White clovers are suited to a wide range of soil types from sandy soils to well-drained heavy clays. One method of differentiating white clovers is by leaf size, another by stolon density. Persistence in pasture is usually attributed to those cultivars whose stolon density is highest although some persistence can also be attributed to seeding.

Rainfall: 750mm+ Irrigation
Seed count: 1,600,000 / kg
Sowing rate: 1-2kg/Ha Dryland
3-5kg/ Ha High Rainfall/ Irrigation

BEAST

Coming soon. An exciting development from Australian breeding, from parents with proven heat tolerance and persistence.

QUEST

A large-leaved, white clover with shown outstanding yield potential and persistence under adverse conditions. Suitable for all cattle pastures and rotational grazed sheep finishing pastures, especially when mixed with Beast white clover.

RED CLOVER

Trifolium pratense

A short-lived perennial clover native to Europe and sometimes referred to as cow grass. Its main growth periods are spring and summer with very little production in winter. Soils need to be well drained, fertile, and slightly acid. High in feed value and performs best under low stocking rates. Very suitable for high quality hay production. Diploid and tetraploid cultivars are available.

Rainfall: 600mm+ or Irrigation
Seed count: 500,000/kg diploid
290,000/kg tetraploid

Sowing mix: 3-5kg/Ha
Sowing alone: 6-10kg/Ha

ROSSI

A diploid red clover, with good first year production. It was bred for persistence and disease tolerance. Utilise its high quality to enhance pasture mixes or as a component of specialist finishing pasture like Target Finisher.

STRAWBERRY CLOVER

Trifolium fragiferum

A deep-rooted perennial clover native to the Mediterranean region. Survives periods of drought or flooding. Tolerates very heavy and saline soils, performs best on neutral to alkaline soils.

Rainfall: 550mm+
Seed count: 800,000/kg
Sowing rate: 1-2kg/Ha Mixes

PALESTINE

Grows in spring, summer and autumn but not much in winter. Prostrate growth habit, good ground covering ability in wet soils.

Lucerne Variety	Winter Activity	Description of Lucerne Variety
Ryno 6	6	<ul style="list-style-type: none"> • A general purpose variety suited to both grazing and hay production in irrigated or dryland areas • A persistent variety that has resistance to some insect attack and fungal disease
SARDI Grazer	6	<ul style="list-style-type: none"> • Market leading grazing tolerant lucerne variety • Persists under periods of set stocking up to two months once established • Persistence 8-10 years+ • Requires minimal rotational grazing management • Exceptional persistence across a range of environments from low to high rainfall, dryland and irrigation
SARDI 7 Series 2	7	<ul style="list-style-type: none"> • Good grazing tolerance with strong pest and disease resistance • Improved performance in cold, wet environments • Well suited to grazing and hay production with a broad crown and high leaf-to-stem ratio
SARDI 10 Series 2	10	<ul style="list-style-type: none"> • Suited to cropping rotations, pasture mixes and year-round hay production systems. • Improved forage production and persistence over SARDI 10 • Highly productive 3-4 year + option

Winter Forage

Oats, Ryecorn & Legumes

FORAGE CEREALS GRAZING AND HAY OPTIONS

OATS

Avena sativa

Oats are a cereal crop that can provide good feed from late autumn through to early spring. Oats adapt to acid soils and are a useful tool in pasture renovation because they expand the number of chemical possibilities that can be used for weed control in the year prior to sowing a perennial pasture. Oats can be combined with a legume (such as the Target Oat & Vetch and Mega Silage blends) to increase overall quality if hay is required. There are a large number of cultivars available and this will allow selecting specifically for grazing, hay or grain as well as dual purpose varieties. Rainfall: 550mm – 800mm
Seed count: 30,000/kg
Sowing rate: 80-120kg/Ha depending on rainfall

GRAZING AND HAY FORESTER

A dual purpose oat, late maturing oat suited for grazing and export quality hay production. For graziers offers excellent early growth and quick recovery from grazing and late maturity. Suited to Northern and Southern Australian environments. Features of Forester include high forage yields, good regrowth capabilities, excellent export quality hay and proven disease resistance.

GRAZING OR HAY MULGARA

Mulgara is a mid-season tall oat which is suited to hay production. It has exceptional hay yield which can make export quality.

KINGBALE

Kingbale is a mid maturing, tall variety with improved tolerance to soil residual IMI herbicides. Seed will only be available if it receives a Sentry® registration

KOORABUP

Koorabup are a mid-tall hay oat with mid-quick maturity. Similar height and stem diameter to Yallara and hay quality is similar to Wintaroo.

TUNGGOO

Tungoo are a medium tall mid to late season hay variety with excellent disease resistance.

GRAZING

MARLEIGH

Marleigh is an exciting, mid-late maturity, improved grazing oat, with outstanding early vigour, fast biomass production and recovery post grazing. Marleigh comes out of South American breeding program and is our best oat for winter grazing.

SAIA OATS

Avena strigosa

Saia is more tolerant of acid soils than other oats but is not suited for hay. The seed is small and black.

Rainfall: 500mm+
Seed count: 54,000/kg
Sowing rate: 60-80kg/Ha

RYECORN

Secale cereale

Ryecorn is a deep rooted early winter feed option. Rapid establishment provides first grazing at 4-8 weeks with good recovery allowing 3-4 grazings per season. Sown with brassica, legumes or vigorous grasses, ryecorn can provide a fast feed component to be overcome by the more nutritious pasture varieties as the ryecorn is grazed out.

Rainfall: 350mm+
Sowing rate: 80-100kg/ha alone,
20-40kg/ha mixes

VAMPIRE RYECORN

Bred in Australia by the University of Sydney, Vampire ryecorn has been selectively bred to improve leaf production and mature later than common ryecorn, therefore offering greater biomass during a longer growing season. This improved productivity makes Vampire ryecorn an excellent choice for the discerning grazier.

WINTER LEGUME FORAGE AND HAY OPTIONS

FIELD PEAS

Pisum sativum

Field peas are a hard winter legume and are one of the oldest domesticated crops, cultivated for at least 7,000 years. They are now grown in many countries for both human consumption and stockfeed. There are several cultivars and colours of peas, including blue, dun (brown), maple and white. Peas are a climbing annual legume with weak, viny and relatively succulent stems. Vines are often 1.2 to 1.5 metres long but when alone, field pea's weak stems prevent it from growing more than 40- 60cms tall. Leaves have two leaflets and a tendrill.

Flowers are white, pink or purple. The root system is relatively shallow and small, but well nodulated.

Rainfall: 500mm+
Seed count: 5,800/kg
Sowing rate: 80-120kg/Ha

DUN & KASPA TYPE PEAS

Suited to silage with many different cultivars available. Differences in cultivars can be found in their range of disease resistance, yield potential, flowering dates and suitability for grain or plant dry matter production. Dun or Kasper type peas feature in our FArmour Cool Cover as well as TARGET Mega Silage.

COMMON VETCH

Vicia sativa

Common vetch is a winter-active annual legume usually added to oats or cereals to increase dry matter production and to improve feed quality for grazing or hay. Sown alone, vetch can provide a high protein hay yield or it may be used as a green manure crop, providing nitrogen for following crops and breaking disease cycles.

Rainfall: 350mm+
Seed count : 25,000-50,000/kg
Sowing rate: 15-30kg/Ha alone,
20-30kg/Ha in mixes

PURPLE VETCH

Vicia benghalensis

Purple vetch is an annual legume native to Southern Europe generally grown as a green manure crop or mixed with oats to produce hay. Purple vetch does not respond well after grazing and is 100% soft seeded.

Rainfall: 400mm min or higher
Seed count: 22,000/kg
Sowing rate: 15-40kg/Ha Mixes
depending on rainfall.
30-50kg/Ha Sole Component

BENETAS

Benetas Vetch was developed by Tasglobal Seeds. It is capable of producing high forage yields and has good early spring vigour. Benetas is later flowering than Popany. Its cold tolerance during vegetative growth is improved. It is also tolerant of moderate waterlogging. Benetas Vetch features in our Target Oat & Vetch and FArmour HDL blends.



Image: Target Oat and Vetch blend. 22nd October 2022, Western Victoria.

VAMPIRE RYECORN

When Daniel Hammat wanted a good grazing option for his Baderloo Merinos, he turned to Vampire Rye-corn and he's not going back.

And the good news with Vampire Rye-corn is that – like a bloodsucker in a horror movie – it keeps coming back.

Baderloo Merinos has been established for 21 years and the Hammatt family has farmed near Spalding in mid-north South Australia for 40 years where they enjoy strong hills grazing, reliable 450mm rainfall and good arable country.

Daniel ventured into sowing pastures to better utilise the land and grow good feed for their Poll Merinos.

The first sowing attempts didn't go to plan. "We'd grown an awnless forage barley in the past and it didn't tolerate the grazing as well, so tried Vampire Rye-corn and it has been extremely good," he said.

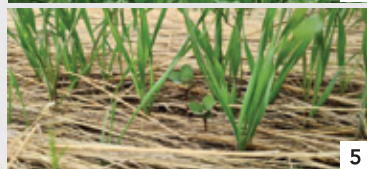
A client of Baderloo Merinos had been growing Vampire Rye-corn and Daniel's research indicated it was worth a try.

"I knew it was a vigorous growing and grazing option," he said. "You can graze it really hard and it always comes back."

After two years, Vampire Rye-corn has met all expectations.

Daniel has sown it in April-May to capitalise on the autumn break. "We graze it through winter and then let it mature and then graze it off as a standing crop in summertime as well," he said. "That way you're getting dual benefit out of it. You can graze it hard, get some spring rain and let it go and then graze the grain off it.

"It's so tolerant of heaving grazing. It's quick to get established and you can graze it really hard and it will always come back."



This year he sowed another round in late November after some good spring rain. "We thought we'd see how it goes over summer. Because it gets going so quick, we thought we'd try to generate some quick feed."

Daniel is pleased with the choice. "Everything does well on it; absolutely it will stay in our system."

Images: 1: Daniel Hammat, Baderloo Poll Merino Stud, standing in Vampire paddock that has already given Autumn and winter grazing before being shut-up. Daniel is now going to windrow and graze those windrows. 2: Alternate row, Autumn sown Vampire with brassica and clover. 3: Vampire sown into lucerne and clover. 4: Taken in July of Autumn sown Vampire. 5: 22nd November sown Vampire, Brassica and vetch.

Supplied by Daniel Hammat, Stud Principal, Baderloo Poll Merino Stud



FORESTER OATS

With a field of Forester Oats almost covering his old tractor, Will Bazley has no hesitation in describing the crop as the best he's seen.

Will has long appreciated the value of Forester Oats at his farm at Clifton in southern Queensland where he runs predominantly sheep along with a few pigs. Over the last 18 months he's also started selling Forester Oats for AGF Seeds and he says the response from farmers has been overwhelmingly positive.

"In my opinion it's the best oats on the market," Will says. "It's a good all-rounder that fits into most climates and keeps performing year after year."

"Farmers get really good bang for their buck."

Will says Forester Oats perform well anywhere from central New South Wales to central Queensland and the highlands.

"They're the most adaptable oats I've seen and can handle the tough times," he said. "You can put them down on the coast or in hard, dry country and they still perform and create highly palatable feed."

"The stock love it."

While marketed predominantly as hay oats in southern Australia, further north they are mainly used for cattle grazing with an opportunity for hay, although Will's personal experience proves it's popular among all stock.

With new trials in central NSW and Queensland, demand for Forester Oats is growing.

"The trials are looking quite positive and people are actively ringing up looking for it," Will said.

Will says quality varieties are a better fit for central and northern Australia.

"I've seen some people drag cheap southern oats up here and they just don't perform – they can't handle the heat and the longer days.

They go into shock and run to head but Forester being a late maturity variety just hangs on."

The oats are usually sown late February through early March. "People get at least two quality grazings, probably three and we've still got people feeding it now," Will said.

This year Will's Forester Oats were sown on April 1, while the photo was taken on July 17.

"That's the best oats I've ever seen. I've cut hay off it and had two good grazings this year."



Above: Forester Oats, July 17th 2021, Clifton, Qld. Pic courtesy of W Bazley.

Resources

SOWING RATE CALCULATOR

To convert 1000 seed weight (tsw g) to seeds/kg divide 1000 by tsw (g) and multiply by 1000 = seed/kg

eg. Your seed has a thousand seed weight of 40 grams = $1000 / 40 \times 1000 = 25000$ seeds/kg

TPP = the target plant production per square metre

PLS = Pure Live Seed = germination % x physical purity % eg; Your seed has 95% germination and is 98% pure, $PLS = 0.95 \times 0.98 = 0.931$

EP = Establishment percentage - how many of the viable seeds planted will establish given stresses from pests, environment etc. eg $75\% = 0.75$

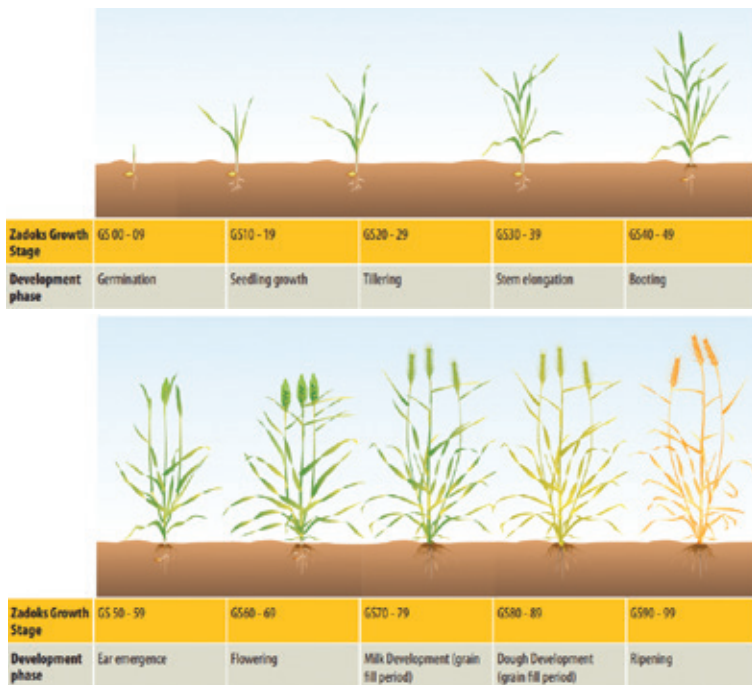
example

$$\text{Sowing Rate kg/ha} = \frac{(\text{TPP} \times 10000) / \text{seeds/kg}}{\text{PLS} \times \text{EP}} = \frac{(200 \times 10000) / 25000}{0.931 \times 0.75} = 115 \text{ kg/ha}$$



Below: This photo demonstrates the extent AGF goes to, to ensure a quality end product. This process is called roguing, which is manually removing 'off-types' from the crop.

ZADOKS MATURITY SCALE



https://grdc.com.au/_data/assets/pdf_file/0031/364594/Cereal-growth-stages.pdf?utm_source=website&utm_medium=download_button&utm_campaign=pdf_download&utm_term=National&utm_content=Cereal%20growth%20stages

OAT MATURITY GUIDE



Figure 4.1 Variety maturity time line – source National Oat Breeding Program 2016

Indicative cutting dates based on all varieties sown on the same date in the same year. The relationship between early and very late maturity will remain constant but the date of maturity may be earlier or later depending on the season. Maturity differences between varieties are greater than maturity difference for the same variety sown at different times.

LAWN SPECIES TOLERANCE CHART

	Turf Type Perennial Ryegrass	Turf Type Tall Fescue	Creeping Red Fescue	Kentucky Bluegrass	Bentgrass	Couchgrass	Kikuyu
Drought Tolerance	★★	★★★★	★★★	★★★	★	★★★★★	★★★★★
Shade Tolerance	★★★	★★★★	★★★★	★★	★★	★	★
Traffic Tolerance	★★★★	★★★★	★★	★★★	★★	★★★★★	★★★★★

SUMMER GRASSES & LEGUMES

GOOD FEED VALUE DURING SUMMER

Summer grasses and legumes can provide good forage during the warmer months of the year. The feed value of the grasses varies considerably with the millet and sorghums tending to be lower in energy and digestibility compared to teff.

Cowpeas and lablab are fast growing, annual, summer forage legumes. They are excellent quality crops for fattening livestock, and are also regarded as good feed for milking cows. Traditionally, these crops have been grown in the northern half of NSW, where summer rainfall is more predominant. Their suitability to the more southern areas like Victoria is limited.

SUNN HEMP *Crotalaria juncea*

A tropical legume adapted to a wide range of soil and environmental conditions with very quick growth in favourable conditions. Originating in India, recent popular use around the world has expanded rapidly and Sunn Hemp is widely used in Cover cropping, grazing and forage production. Crops can be grazed through to flowering and when planted into warm soils with good moisture, biomass production can be very fast. Access to quality sowing seed has traditionally been an issue for Sunn Hemp adoption in Australia but seed is now readily available.

FREYR

Highly valued soil health species, Freyr fixes nitrogen, and is a high protein forage option.

For further information see page 32.

Sowing rate: 10-20kg/ha

COWPEAS *Vigna unguiculata*

A summer growing legume, cowpeas are more suitable to sandy soils than Lablab, they flower earlier but do not recover as well after grazing.

Sowing rate: 20kg/ha

LABLAB

Lablab purpureus

Lablab's performance on heavy soils is greatly superior to that of cowpeas; both require well-drained soils, although lablab has better resistance to phytophthora root rot. Lablab is more tolerant than cowpeas to trampling and recovers quicker after grazing.

Sowing rate: 30kg/ha

SOYBEAN

Soybean is an annual Summer growing legume that can be a useful forage and hay crop, particularly in high rainfall and coastal districts. Grain varieties can be used for hay production but later maturing types are preferred for grazing. The best quality hay is made from soybean crops when pods are half filled. In all production areas, crops intended for grain are sometimes cut for hay after poor pod set, or when the relative return for hay is higher than expected returns from grain i.e. drought.

FORAGE SORGHUM

Forage sorghum is the most productive and fast growing forages. It can produce large volumes of feed relatively quickly. As a general guide, it can be sown when the threat of frost has gone and soil temperatures have reached at least 16°C. Graze carefully, once the crop is well established, 80 cm high and unstressed. If the crop is stressed, there is a risk of Prussic acid and/or nitrate poisoning.

Check more specific information on each available variety.

HYBRID FORAGE SORGHUM SWIFT

Swift is a fast growing, fine stemmed sorghum x sudangrass hybrid with excellent palatability. Swift provides a high quality product that can be used for grazing, hay and silage. Swift has an excellent leaf to stem ratio and is quick to regrow, making it suitable for multiple cuttings at the highest quality.

SWEET SORGHUMS CHOP-CHOP

Chop-Chop is a sweet sorghum x sweet sorghum variety that has high yield and sugar levels. Chop-Chop makes excellent silage and is a grazing option. It has been proven to be highly palatable due to its large leaf and juicy sweet stalks which also increases its energy value.

TEFF *Eragrostis tef*

Teff is a self-pollinated, annual grass and can be harvested or grazed multiple times during the growing season. As a fast-growing crop, Teff combines excellent forage quality with high yield during a relatively short growing season. It is best sown when soil temperatures have reached 18°C. Due to its extremely small seed size, seed placement at sowing is critical. The best seed bed for Teff is obtained by working the soil, rolling then dropping the seed on top and rolling again. Sowing depths of 10mm or greater can result in complete failure.

Sowing rate: 5-7kg/ha

SHIROHIE MILLET *Echinochloa utilis*

Shirohie Millet has less dry matter production than forage sorghum. It can be more difficult to establish than the larger seeded sorghums. Shirohie can be grazed 5 to 7 weeks after sowing but does not stand harsh grazing. There is no prussic acid poisoning risk associated with Shirohie. It can run rapidly to head in hotter weather so grazing management is important, it is also frost sensitive.

Sowing rate: Dryland or in mixes
10-15kg/ha.

Irrigation: 20kg/ha

GRAZING MAIZE

Grazing maize is a single graze, quality feed option. It does not contain prussic acid. It is not affected by diamond back moth and white butterfly. It also tolerates lower soil temperatures at sowing than Sorghum and millet.

Summer Forage Brassica

BRASSICAS

VALUABLE FEED FOR HIGH ANIMAL PERFORMANCE

RAPE

Rape is the most versatile of the brassica species. It is suited to a wide range of soil types, fertility levels, and environmental conditions. Rape is valued as a finishing crop for sheep, beef and dairy cattle and has flexibility in its sowing times.

TURNIPS

Turnips can be utilised for both their leaf and bulb production. They are classified by the shape of the bulb. Tankard (summer turnip) have only 40% of their bulb below the ground making them more accessible to stock, while globe shaped turnips have about 90% of the bulb growing below ground, hindering stock access. Remaining bulbs should not be left in the paddock and will need to be cultivated after the tops have been grazed.

HYBRID BRASSICAS

Hybrid brassicas are created by crossing a turnip with an Asiatic leaf vegetable, kale or rape. The resulting plant is quick-growing and leafy with minimal bulb development. Hybrid brassicas are able to produce large amounts of high-quality feed in multiple summer-grazings, and are also suitable for autumn sowing. Hybrid brassicas produce feed that is highly palatable and digestible, and have outstanding regrowth potential.

RADISH

Go to page 29 for more information.

Variety	Description	Maturity	Grazings	Sowing rate
Dual Purpose Canola				
Phoenix CL	See page 37	9-12 weeks	2-4	3-4 kg/ha
RAPE				
Blue Gorilla	<ul style="list-style-type: none"> Released and evaluated in Australia since 2017 Short type brassica with good forage yield Earliest to first graze in our rape range. Good regrowth potential after grazing and ability to respond to moisture after long periods of summer dry. Suitable for multi species mixes 	10-12 weeks	2-4	3-4kg/ha
Winfred	<ul style="list-style-type: none"> High leaf:stem ratio for excellent utilisation rates Tolerant of dry conditions once established Ideal for summer, autumn and winter feed 	10-12 weeks	2-4	3-4kg/ha
Greenland	Greenland is a high yielding forage rape that can be used by dairy, beef and sheep producers to produce high quality feed in any season where moisture during growing season will allow.	10-13 weeks	2-4	3-4kg/ha
TURNIPS				
Mammoth Purple Top (MPT)	- Leafy tops with large bulb	12-14 weeks	1	0.5 – 2kg/ha
HYBRID BRASSICA				
Karaka	<ul style="list-style-type: none"> Early maturity 6-8 weeks, minimal ripening requirements. Fast recovery from grazing with excellent subsequent yields, given moisture. 	6-8 weeks	2-4	4-5kg/ha
RADISH				
Tillage Radish	<ul style="list-style-type: none"> Excellent early growth. First to graze of the forage brassica options, nil ripening requirements. Dual purpose forage and soil health opportunities. 	4-6 weeks	1-2	5-8kg/ha

Seeds that sheep love to eat

MINHAMITE farmer Tim Whitehead likes the look of Blue Gorilla is his paddocks, but there's one thing more important than the look...the taste.

And that's where Blue Gorilla really excels. "The best thing about it was the palatability...the sheep just loved it," Tim said.

Tim has a mixed prime lamb and cropping enterprise at Minhamite, running nearly 9000 ewes on 2900 hectares.

The past year has offered great growing conditions and Tim's first use of Blue Gorilla proved to be a big success.

"Last year was the first time I used it," he said. "I was going to use another variety, but it wasn't available at the time, so I thought I'd give Blue Gorilla a go."

After being alerted to the product by NRI Kelly's Merchandise agronomist, Cameron Templeton, Tim is now a convert and plans to use it again this spring.

"I was very happy with it," he said. "It got away nice and quick, and it never looked back. It was very healthy."

Tim used it over about 80 hectares, primarily to finish lambs, and the results easily matched his expectations, especially when it came to the sheep

taste test. Blue Gorilla also aids with weed and pest control. "We didn't have any dramas with pests," Tim said. "It seemed to stand up pretty well to any insects."

It is now going to be part of the farm's ongoing rotations. "We'll definitely use it again," Tim said. "We have heavy clay and basalt soils and it worked well here."

The timing and versatility of Blue Gorilla adds to its appeal. "It's a mid-season variety, you can go a bit later or a bit earlier depending on what the season is going to allow you to do," Tim said.

"It won't vernalise if you go too early."

"If you sow some varieties too early, they can start running to seed, but this doesn't."

RIGHT: TALK to Cam and Brendan at Kellys, today, about AGF Seeds Blue Gorilla. INSET: AGF Seeds Blue Gorilla are known for their taste. Photos: SUPPLIED.

BLUE GORILLA

Mid maturity, darkblue-green forage rape.



WESTERN DISTRICT FARMER August 2021

BLEND
PASTURE
FORAGE

WINTER FORAGE

SUMMER FORAGE

HERBS

TILLAGE RADISH

SOIL HEALTH

GRAIN

AGF Seeds help produce fine Merinos

WILL Crawford's family has farmed in the Victoria Valley near the Grampians since 1870 – but after six generations he's still keen to try new things.

This year, on advice from his agronomist at Nutrien Hamilton, Will sowed BLUE GORILLA as a comparison against Leafmore.

The results have convinced Will to keep BLUE GORILLA as part of his mix.

Will's Sierra Park is a sheep-based operation with 15,000 fine wool merinos and cross-breeds on 6000 acres.

The sixth-generation farmer used BLUE GORILLA as part of his summer crop program for feeding lambs.

"With any fodder rape, you want good production and good regrowth and for it to be cost efficient for the price of the seeds," Will said.

"We have light country in spots, and it can be hard for summer crops to get huge production if its dry, but we were lucky this year and the summer crops did very well."

Leafmore has been the go-to for the past three or four years, but Will was keen to trial BLUE GORILLA.

"We're really happy with it," he said.

"It had great production. We were fortunate we could feed urea in December, which is rare, but we had a full moisture profile with rain on the horizon and that gave it a nice bump along."

WESTERN DISTRICT FARMER September 2021

RIGHT: NUTRIEN Hamilton agronomist, Cameron Morris sowing summer crop trial to evaluate AGF Seeds varieties. Photo: SUPPLIED.



It was placed side-by-side with Leafmore and both did really well.

"I didn't weigh lambs on and off the summer crops, but I was absolutely happy with the way BLUE GORILLA performed," Will said.

While it did well in favourable conditions, Will is confident it would also perform in tougher seasons.

"The merinos we turned off it were fantastic," he said.

"All we had to do was supplementary feed a bit of wheat and beans and some bales of straw. They were really clean, fat lambs coming off it. We couldn't be happier."

"We'll keep it in our mix and grow it again, for sure."

WESTERN DISTRICT FARMER July 2021

Blue Gorilla for soil or farming systems

AGRONOMIST, Tyler Gleeson from McDonald Rural in Coleraine sees many benefits in Blue Gorilla forage rape no matter which way he looks.

Whether it's to the highly fertile dairy farms south, or the stony drier land for sheep and beef to the north, Blue Gorilla always impresses.

Tyler is happy to recommend Blue Gorilla for any type of soil or any farming system.

"I like its resilience early on in terms of pest resistance and it's quick out of the ground," he said.

"It's a good all-rounder; it's very versatile and producers can use it early to finish lambs or younger stock in the spring and summer and then later in summer and autumn it still produces good feed that will keep coming back throughout the season."

Blue Gorilla has the versatility to suit anywhere in the south-west.

"There are a lot of different soil types in our region," Tyler said.

"It works an hour south on the coast where there

are highly fertile dairy farms that get 800 millimetres-plus rain a year, and then you go half an hour north of us and it's quite marginal, stony ground and it still works.

"It will perform anywhere.

"Other species can find it difficult to grow depending on the conditions, but with Blue Gorilla you know you are going to get good performance no matter where you are.

"It's suited to anything; sheep, beef or dairy." While impressive in its own right, Blue Gorilla can be successfully mixed with other species, such as turnips.

"Over summer it provides a really good feed option with high protein and it's quite palatable even later in the season," Tyler said.

"Blue Gorilla is a very versatile performer, being able to be used straight or also in a mix with other species such as turnips, to meet the needs of each individual producer."



MCDONALD Rural Services agronomists, Sinead Barker and Josh Brown, at their trial site, standing in front of Blue Gorilla. Photo: SUPPLIED.

Herbs

PASTURE HERBS ADDING VARIETY AND QUALITY TO A PASTURE

PLANTAIN *Plantago lanceolata*

Plantain is a fibrous rooted perennial pasture herb capable of growing in a wide range of soil types and under varying fertility levels. It is highly palatable to stock and very high in minerals. Plantain can be sown in mixtures with any legume, grass or other herb.

Rainfall: 550mm+ or Irrigation
Seed count: 500,000/kg
Sowing rate mix: 2-3kg/Ha
Sowing rate alone: 8kg/Ha + clover

TONIC

Broad leaf perennial herb with an upright growth habit. Strong cool season growth and an excellent source of key minerals such as calcium and selenium. Highly palatable, suitable for use in pasture mixes for sheep, beef and dairy.

CHICORY *Cichorium intybus*

Chicory is a deep rooted short-lived perennial herb. It is summer active, producing highly palatable feed from spring through to autumn where it is an ideal crop for supplementing stock and increasing animal intake and performance. Chicory has the ability to perform well in free draining acid soils making it a suitable alternative to lucerne where soil

acidity is an issue. Due to its upright nature and preference to grazing stock, persistence and performance is maximised under rotational grazing and will perform exceptionally well under good fertility.

Rainfall: 550+ or Irrigation
Seed count: 850,000/kg
Sowing rate mix: 1-2 kg/ha
Sowing rate alone: 3-5kg/ha

PUNTER

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

PUNA

Proven, persistent longer term chicory.

Tillage Radish Soil health and forage Brassica

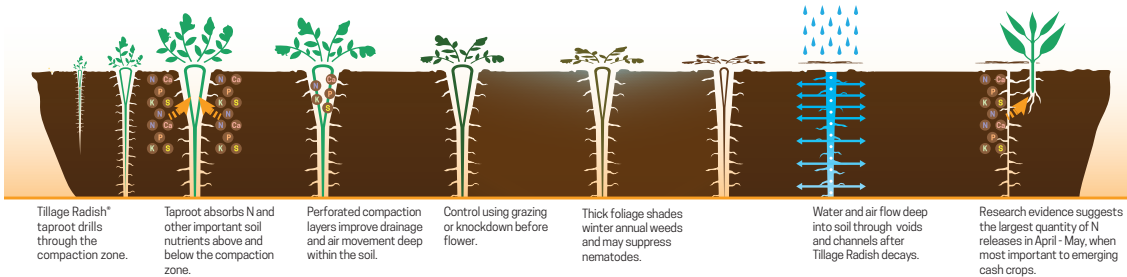
THERE IS ONLY ONE: AGF SEEDS TILLAGE RADISH

TAPROOT, TUBER AND LEAF.

A long fine taproot, potentially large tuber and high quality, quick growing leaves, makes Tillage Radish of value in cropping rotations, soil health programs, and annual pastures. Alone or multispecies, think Tillage Radish.

SEASONAL BENEFITS & CONSIDERATIONS FOR TILLAGE RADISH:

Summer / Autumn	Winter	Spring
PLANTING: Plant on substantial summer rain or in February / March on 10-15mm event for feed wedge or Winter forage.	TERMINATION: Tillage Radish holds the nitrogen and other soil nutrients over the winter. To control, use standard herbicide burndown methods in the spring before flowering.	SOIL CONDITIONING: Tillage Radish decays, the voids are left in the soil, along with holes in the compaction zone from the taproot. This means your soil will have greater air and water circulation.
NUTRIENT SCAVENGING: Nitrogen (N) is absorbed along with other key nutrients, including that from manure. Tillage Radish will release the nutrients in the spring when needed most by cash crops.	WHAT WEEDS? A thick canopy is formed so most annual weeds never see the light, potentially reducing the need for a spring burndown.	DECAY & RELEASE: Once temperatures rise, the nitrogen is released back to the rhizosphere and the root zone. Here it will be available for the cash crop that follows Tillage Radish.



Tillage radish removes excess moisture from soils

TILLAGE radish has been showing its benefits in trials undertaken by Southern Farming Systems.

Southern Farming Systems senior research and extension officer, Ashley Amouris said tillage radish had featured in mixed-species trials conducted over the past two summers near Rokewood.

"It performed well," she said.

"It established really well, and we had good summer growth and biomass from it. It had a good root structure, and when dug up you could see the large taproot coming off it."

Ashley said that in some areas you could "see the tuber pushing out of the ground".

The Southern Farming Systems trials have been comparing different treatments, including a fallow treatment, multi-species and single species plots.

In the summer of 2020/21 the multi-species treatment had a mix of seven species, including soybeans, sunflowers, forage rape and tillage radish.

"It was a real mix, everything bringing its own benefit in different ways in impacting the soil structure and soil health," Ashley said.

"Tillage radish was also in the previous year, and you could see where it had been because it has such a large tuber on it, you could still see the holes in the ground the following year.

"In terms of reducing compaction, it looks like it's doing its job."

One of the potential advantages of tillage radish being investigated is its ability to remove excess moisture from soils.

"As well as having those compaction benefits, people are looking at it for its potential to remove excess subsoil moisture from the soil over summer," Ashley said.

"Together with Jon Midwood of TechCrop, we



CROP of tillage radish and (inset) Ashley Amouris from Southern Farming Systems. Photos: SUPPLIED.

are running farmer discussion groups as part of the GRDC Hyper Yielding Crops Project, and this is something that has come up in conversation, particularly this year, being quite a wet season with a lot of waterlogged paddocks around. There

are different options growers consider to improve paddock drainage. Subsurface and surface drainage systems, deep ripping, or the potential for tillage radish over summer to try to remove sub-soil moisture have all been discussed.

"In the long-term, they are aiming to reduce their waterlogging issues in their winter cash crops." The trials are also looking at the potential impact of cover cropping on soil carbon and nutrient stratification and cycling.



Over the past five years, farmer and agronomist Ed Hilsdon has seen how tillage radish works on multiple levels.

Not only does it provide a great palatable feed source, it improves the soil structure, thus preventing winter crops from getting too waterlogged.

Ed has a mixed grains cropping and sheep operation near Shelford and also works with other farmers as an agronomist. Tillage radish is now used opportunistically in his rotations as a post-harvest break-crop.

He says that high rainfall areas of southern Victoria often face waterlogging over winter, which can be more of a problem for yield potentials than getting too hot or too dry.

"Tillage radish benefits the soil structure," Ed said. "Not only does it offer the opportunity to dry the soil profile, it helps the following crop to explore more of the deep moisture and the nutrients in the subsoil, facilitating extra root growth."

"It really helps us in that following winter for our grain crops by stopping them from getting waterlogged and improving survival."

Ed uses tillage radish as an opportunity for a cover crop over summer straight after the headers to take advantage of its ability to open the soil with deep-rooted channels.

"It's a great, quick-growing feed source over summer," he said. Stock do well on it on its own but it also does well in a mixture with the likes of a forage rape.

"It's green feed for livestock plus it has the benefits of providing cover so you don't get as much surface erosion and the following crops will be able to explore different pathways into the soil."

Ed says that in exciting times for rural industries buoyed by high commodity prices, it's wise to value add to keep the soil healthy and your program growing for as many months of the year as possible.

BLENDS

PASTURE

FORAGE

HERBS

TILLAGE RADISH

SOIL HEALTH

GRAIN

Cover Crop

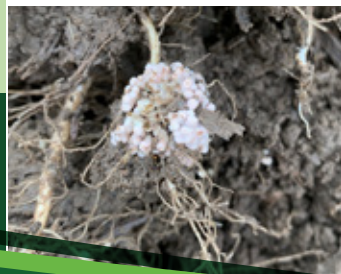
AGF Seeds have had a long history of contributing to cover cropping in Australia. This includes supporting farm groups like Southern Farming Systems, Birchip Cropping Group, Vic No Till, SA No Till, QDPI, Adel Uni CSIRO, Soil Wealth, to name a few. Innovation has been a major part of the story. AGF proving to be pioneers with Tillage Radish and Sunn Hemp in Australia. Continued investment in staple cover cropping species like Vampire Ryecorn is proof of our commitment to continual improvement for cover cropping. With the vision of being the most trusted seed business in Australia, product quality is front of mind and a big consideration in delivering leading products and service.

The benefits of cover cropping are many and varied, depending on the objectives and farming system. Some of the benefits cover croppers report include, having roots open and stabilise the soil, improved water holding capacity of the soil and increased rain infiltration, improved soil fertility, carbon and soil organic matter improvement, biologically suppressing weeds and diseases, encouraging beneficial soil biology, fill feed gaps, increase biodiversity for above ground beneficial insects and birds.

This seed guide is full of options available to be used in cover crops. The FArmour multi species seed blend range, offers a convenient way to use a range of product to achieve your soil health objective. The following table summarises some of the benefits from each broad group of species, and highlights some key cover cropping varieties AGF has to offer.

Species and Cultivar	Features	
Freyr Sunn Hemp	- Cover Crop Legume - Nitrogen Fixation - High Biomass production - Excellent trellis plant	- Requires soils 14degrees+ - Vigorous growth - Non-host to nematodes
Tillage Radish	- Quick coverage - Strong tap root - Bee attractant	- High feed value - Excellent nutrient cycling
Vampire Ryecorn	- Fast feed - Nematode suppression	- Dense root system
Legumes	- Fix nitrogen - Combine well with support plants to use free space and suppress weeds - Excellent water user - High quality fodder	- Strong tap-roots - Heavy branched root system - Bee attractant
Brassicas	- High feed value - Good green manure	- Strong root system
Linseed/Flax	- Mobilises silicon - Companions well with other species	- Fibrous & strong root system
Sunflowers	- Bee attractant	- Tap root
Grasses and cereals	- Fast growing - Dense root system - Quick establishment	- Forage, silage or hay - Nematode suppression - High quality feed
Buckwheat	- Rapid growth through Summer (Frost sensitive) - Used to attract beneficial insects - Fibrous root system	- Cycles inorganic phosphorus
Phacelia	- Non-legume broadleaf Annual - Can be source of forage for pollinator insects - Widely used as fast growing cover crop and green manure	
Sun Flowers	- Warm Season broadleaf	- Useful component of cover crop blends

Images (below): (Left & Middle) Freyr is a legume and fixes nitrogen as shown in pictures below of healthy nodules on Freyr roots. (Right) L to R Pat McGuinness – Agronomist, David Moon – Moonrocks, St George, Qld, Will Bazley – Seed Sales Representative, Nth NSW and Qld, AGF Seeds. Pictured in a paddock of Freyr used in a multi-species break crop before pumpkins.



FREYR SUNN HEMP

SEED AVAILABLE NOW

FREYR: LIKE THE GOD SOIL HEALTH, NUTRITION AND PRODUCTIVITY

Freyr Sunn Hemp fits into a sound soil health program, through impacting three key elements of a healthy soil: biology, structure and chemistry.



Scan QR code to view Sunn Hemp cover crop video.



To download the latest Freyr Sunn Hemp brochure, scan this code

Cover crop legume. Sunn Hemp (*Crotalaria juncea*)

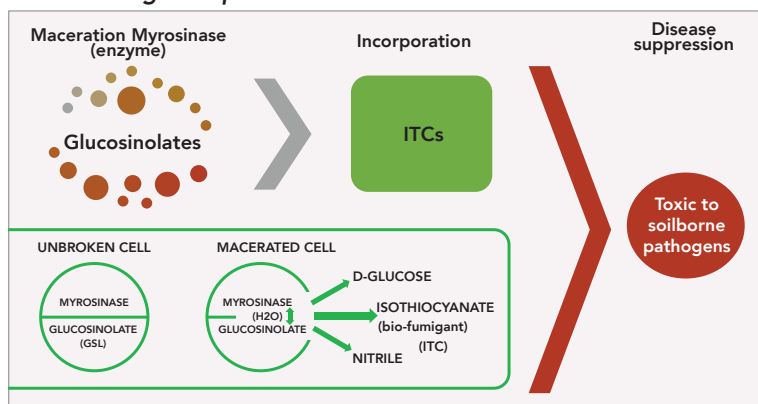
GREEN OR BROWN MANURE	SOIL BIOLOGY	SOIL STRUCTURE	SOIL CHEMISTRY	ANIMALS AND SOIL BIOLOGY
★★★★★	BENEFITS SOIL BIOLOGY ★★★★★	ROOTING DEPTH ★★★★☆	NITROGEN FIXATION ★★★★★	
UTILISE SOIL MOISTURE ★★★★★	ROOT-KNOT NEMATODE SUPPRESSION ✓	EROSION CONTROL ✓	WEED SUPPRESSION ★★★★☆	

BIOFUMIGANTS

BIO-FUMIGANT COVER CROPS

A promising strategy for soil and disease management

The biofumigation process



Courtesy John Duff, Horticulture and Forestry Science, Qld Department of Agriculture and Fisheries



Image: Biofumigation trials Gatton Research facility, Nov 2018. A number of entries were AGF Seeds lines.

Timely and termination and incorporation of certain species is required to maximise biofumigation.

Species & Cultivar	Features	Sowing rate
Freyr Sunn Hemp Warm Season Legume	As described plus non-host to nematodes & excellent trellis plant	5-15kg/ha
Assassin Marigold French Marigold	Produces a substance called alpha-terthienyl, which can aid in the reduction of root-knot nematodes and other disease promoting organisms, such as fungi, bacteria, insects, and some viruses.	0.5-2kg/ha
Laika Rocket Rocket Lettuce	<ul style="list-style-type: none"> • High levels of glucosinolates • Suppression of soil borne diseases 	<ul style="list-style-type: none"> • Suppression of a range of nematodes 3-5kg/ha
Falkor Mustard	<ul style="list-style-type: none"> • High levels of glucosinolates • Suppression of soil borne diseases 	<ul style="list-style-type: none"> • Suppression of a range of nematodes • Quick establishment 5-20kg/ha
Pantha Mustard	<ul style="list-style-type: none"> • High levels of glucosinolates • Suppression of soil borne diseases 	<ul style="list-style-type: none"> • Suppression of a range of nematodes 5-15kg/ha
Cappuccino Mustard Ethiopean Mustard	<ul style="list-style-type: none"> • High levels of glucosinolates • Suppression of soil borne diseases 	<ul style="list-style-type: none"> • Suppression of a range of nematodes 10-15kg/ha
Tillage Radish	<ul style="list-style-type: none"> • Non-host to certain nematodes • Excellent nutrient cycling 	<ul style="list-style-type: none"> • Strong tap root • Bee attractant 3-6kg/ha
Terranova Radish	<ul style="list-style-type: none"> • Frost resistant • Resistant to certain nematodes namely tropical Root-knot nematodes. • Non-host to a variety of nematodes and viruses. 	<ul style="list-style-type: none"> • Strong taproot 10-15kg/ha
Doublet Radish	<ul style="list-style-type: none"> • Resistant to certain nematodes namely Beet Cyst and Root-knot nematodes. • Non-host to a variety of nematodes and viruses. 	<ul style="list-style-type: none"> • Strong taproot. 10-15kg/ha

LINSEED, TRITICALE, RYECORN & MILLING OATS

MILLING OAT

BILBY OATS ^(b)

Early / mid season maturity potential milling oat which will suit most traditional oat growing areas of Australia. It is dwarf in stature with excellent yield potential similar to Bannister and Williams. Bilby has excellent grain quality with high groat percent and high levels of B-glucan which is desirable for marketers.



TRITICALE

KOKODA ^(b)

Long season dual purpose with reduced awn (semi-awnless). Similar early biomass to Endeavour and excellent recovery from grazing. Improved grain yield compared to Endeavour, Suitable for early planting, slightly quicker maturity than Endeavour.



LINSEED

CROXTON

Blue flowered Linseed variety released to counteract wilt. It has a good level of wilt resistance and should always be chosen above Glenelg in situations where flax wilt is at all likely. Croxton is a little taller and is more prone to lodging compared to Glenelg, particularly from Autumn planting.



SUNFLOWER

SUPERSUN 66

SuperSun 66 Sunflower is a black seeded polyunsaturated variety. Medium to full season maturity enables it to maximise yield in a wide range of conditions with an excellent level of resistance to the major sunflower diseases including leaf rust, albugo white blister and alternaria.



Above: supersun 66 crop, Central Vic, Feb 2020.

RYECORN

VAMPIRE ^(b)

Vampire rye corn has been selectively bred by Sydney University (plant breeder Jeremy Roake) to improve leaf production and mature later than common Rye corn. Very quick feed for early grazing and greater overall biomass during a longer growing season. This improved productivity makes Vampire rye corn an excellent choice for the discerning grazer. Can be terminated in Spring in preparation for summer crop or used in mixes with other species that prolong the quality and growth later into the season.



EPRs payable for 2021-22 are quoted from the 2022 Victorian crop sowing guide (ref pg 38) and are quoted ex-GST.

Compliance with EPR systems is vital to ensure the future of the Australian grains industry through the funding of new varieties and long-term productivity gains.

EPRs for 2022-23 harvest will become available early in 2022 on the Variety Central website www.varietycentral.com.au.

BARLEY

COMMODUS CL ^(b)

"Think Imi Compass". A Compass barley descendant with yield, CL and good early vigour

CYCLOPS ^(b)

Hindmarsh plant type with very high relative yields in low-medium yield environments. Broad adaptation and Quick-mid maturity.

FANDAGA ^(b)

Slower maturity than Planet. Showing potential yield advantage in trials. Potentially Malt variety.



Why we are FAN's?

FANDAGA is the result of a cross between a very productive barley with a high quality barley. The combination of these two profiles made the breeders optimistic when we saw the results of the first international micro maltings: they quickly confirmed the full potential of the line currently known as FANDAGA. Internationally, FANDAGA offers excellent agronomic advantages with a good yield level and high yield consistency. On the quality side, the "High FAN" type is the major aspect. High diastatic power is accompanied by a good proteolytic activity and an excellent cytolysis. Internationally it also benefits from a very good grading and consistent malting results from barley grown under different climatic conditions. Fandaga is in 2021 NVT and FAR trials, results will be published as they become available. For those interested in growing this exciting new variety, a limited amount of seed is being multiplied for sowing in 2022.

MAXIMUS CL ^(b)

NOW MALT ACCREDITED

Maximus is a high yielding, quick-mid Maturing CL barley. Maximus represents a general disease improvement compared to Spartacus CL, particularly to both spot form and net form of net blotch. EPR \$4.25.

MINOTAUR ^(b)

A mid-slow maturity variety, slightly slower in maturity than RGT Planet. It has shown wide adaption to multiple environments. Minotaur is currently undergoing Barley Australia malt accreditation with the earliest decision expected in 2023. EPR \$4.00

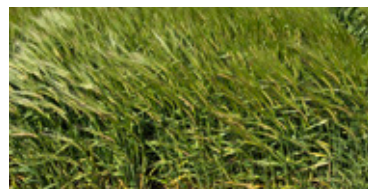
RGT PLANET ^(b)

Released 2016. Proven in a range of environments. A quick maturing variety. It is quick to establish and produces high early biomass for excellent weed competition. Suitable for both domestic and export markets. EPR \$4.00.

LAPEROUSE ^(b)

Laperouse has medium plant height. Very good straw strength and standability, and good head loss resistance. Currently undergoing stage one Barley Australia malt accreditation with the earliest decision expected in 2023. Maturing is comparable to Commander. EPR \$3.80.

Images (Right): Fandaga, Inverleigh September 23rd 2021



Variety	Malt, Non-Malt, Target accreditation date	Height	Maturity	Head loss	Plump grain rating	Lodging
Commodus CL	2023	MT	Q-M	M	9	S
Cyclops	2023	MS	Q	MRMS	9	R-MR
Fandaga	TBC	M	M-S	-	-	-
Maximus CL	Malt	MS	VQ-Q	-	8	R
Minotaur	2023	M	M-S	MR	7	R
RGT Planet	Malt	M	Q	R	7	R
Laperouse	2023	M	Q	R	8-9	R

Plump grain: relative scale: 1 = small or unreliable grain size; 9 = large or reliable grain size. - denotes no rating available.

PULSES

FIELD PEAS

PBA TAYLOR ⁽¹⁾

An early to mid-flowering and maturity with wide adaption and good yield potential which makes it suitable for cultivation across the southern cropping belt. Resistant to PSbM and BLR viruses. Released 2021. EPR \$2.70.

CHICKPEAS

PBA ROYAL ⁽¹⁾

A medium-seeded Kabuli with higher yield than Genesis™ 090 in medium-rainfall Victorian environments. EPR \$6.50.

FABA BEANS

PBA AMBERLEY ⁽¹⁾

High yield advantage over other varieties in high-rainfall regions. PBA AmberleyA is the most resistant faba bean to chocolate spot currently available with a MRMS rating. Good standing ability and a low level of 'necking'. Grain size similar to PBA Samira. EPR \$3.50.

PBA BENDOC ⁽¹⁾

Nufarm's Intercept® is registered product for use on PBA Bendoc. It is important to note that growers must adhere to product label rates, plant back periods and all label directions for use. EPR \$3.90

LENTILS

PBA KELPIE XT ⁽¹⁾

Large-seeded herbicide-tolerant lentil variety. It is widely adapted to lentil growing regions of Australia. EPR \$5.40.

LUPINS

COYOTE ⁽¹⁾

It's maturity to similar to PBA Jurien, and it has metribuzin tolerance similar to Mandelup. Coyote is moderately susceptible to phomopsis; graze lupin stubbles with care in high-risk environments. EPR \$3.00.

SOYBEAN

BURRINJUCK ⁽¹⁾

New grain yield and protein% benchmark for southern regions. Clear hilum and large grain size. Excellent lodging and shattering resistance. Compact plant height and mid-season maturity



	Seed type / coat / colour	Seed size	Plant height / habit	Flowering	Maturity	Lodging resistance	Shattering	Salinity	Boron
FIELD PEAS									
PBA Taylor	Kaspa type	-	High plant vigour, early season. SD-SL	Mid	Early - mid	Fair-good	R: SP	I	I
CHICKPEAS									
PBA Royal	Kabuli	Medium 8mm - Ave 36g / 100 seed	Mid	Mid	Mid	MR	-	-	-
FABA BEANS									
PBA Amberley	Light brown	Med-large	Med	Mid	Mid-late	MR	-	-	-
PBA Bendoc	Light brown	Medium	Med	Mid	Early-mid	MS	-	-	-
LENTILS									
PBA Kelpie XT	Red seed, grey coat.	Large	-	Early/mid	Early/mid	MRMS	R	MI	I
LUPINS									
Coyote	Narrow-leafed	-	Tall	Early	-	-	-	-	-
SOYBEAN									
Burrinjack	Clear hilum	Large	Compact	-	Intermediate	Strong	-	-	-

Winter Canola

MAKE THE RIGHT CHOICE GROW THE ONE THAT IS PROVEN

You take on a lot of risk in farming. When it comes to a Winter canola that benefits you with more grazing, earlier flowering, higher yields, and short plants, Phoenix is proven. World wide.



PHOENIX CL

Hybrid Clearfield Dual-purpose Winter Canola

<p>MATURITY</p> <p> Clearfield Production System</p>	<p>TYPE WINTER</p>	<p>POD SHATTER RESISTANCE (DSV United Kingdom Ltd, n.d)</p>	<p>DUAL PURPOSE</p>
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Wheat

BASF ASCOT ^(b)

APW quality. Mid-slow maturing. Offers different rust resistance to Rockstar. EPR \$3.50.

BIGRED ^(b)

FEED quality. An awned, red-grained winter wheat. Mid-slow maturing variety for medium to high-rainfall zones and irrigation. Suitable for dual-purpose applications when early sowing is possible. Released 2021 (Tested as AGFWH004718). EPR \$3.65.

BOREE ^(b)

APH (South Eastern Zone) Mid season maturing variety. Good yellow leaf spot resistance, moderate plant height, slightly taller than Scepter with good lodging tolerance. Released 2021. EPR \$3.60.

CALIBRE ^(b)

AH quality. Quick-mid maturity variety with a moderately long coleoptile length. Released 2021. EPR \$3.50.

DBA MATAROI ^(b)

ADR quality (northern zone). Quick maturity durum wheat variety. Released 2021. EPR \$3.50.

DS BENNETT ^(b)

ASW quality. Tall awnless, mid maturing winter wheat. EPR \$4.25.

LRPB RAIDER ^(b)

APH (NSW/QLD) quality. Slow spring variety suited to Early to Mid season planting

throughout NSW and QLD. It has the ability to quicken in cooler environments and seasons, while retaining LRPB Lancer's high tillering growth style and LRPB Reliant's ability to finish the season off fast. Released 2021. EPR \$4.25.

RGT ACCROC

FEED quality. Released 2017. Winter variety for medium to high-rainfall zones and irrigation. EPR \$4.00.

RGT CESARIO

FEED quality. Mid-slow maturing, awnless winter wheat. Suitable for medium to high-rainfall areas of Victoria. A multi-purpose variety that is suited to grazing, silage, and grain production. Released 2021. EPR, on grain and hay, \$4.00.

ROCKSTAR ^(b)

AH quality. Mid-slow maturing spring variety. EPR \$3.50.

SHERIFF CL ^(b)

APW quality. Clearfield® Plus wheat with good yield stability. Mid-slow maturing variety registered for label rates of Intervix® herbicide. EPR \$4.25.

VALIANT CL ^(b)

AH quality. Slow season Clearfield® Plus spring wheat. Ideally suited to early sowing and useful where there are residue concerns from previous crops. Good yellow leaf spot resistance. Released 2021. EPR \$4.35.



Top: Accroc. Bottom: BigRed. Taken at the Inverleigh NVT site Oct 20th 2021.



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Agronomic characteristics of wheat varieties.

	Maximum quality southern zone	Rainfall			Screenings	Maturity	Height	Coleoptile length	Lodging	Sprouting	Head type	
		Low <350mm	Med 350 to 500mm	High >500mm							Colour	Awn
DBA Mataroi	ADR		✓		MR	Q	M	-	-	-	W	A
Calibre	AH	✓	✓		MR	Q-M	M	ML	MRMSp	MSSp	W	A
Boree	APH (South Eastern Zone)	✓	✓		MR	M	M	M	MRp	MSSp	W	A
BASF Ascot	APW		✓	✓	MR	M-S	M	ML	RMR	-	W	A
RockStar	AH	✓	✓	✓	MR	M-S	M	M	MR	-	W	A
Sheriff CL	APW		✓	✓	MR	M-S	M	M	MR	-	W	A
Valiant CL	AH	✓	✓	✓	MR	S	M	L	MRMS	-	W	A
LRPB Raider	APH (NSW/QLD)					S	M	-	-	-	W	A
DS Bennett	ASW		✓	✓	-	M (+W)	T	-	-	-	W	AL
BigRed	FEED		✓	✓	-	M-S (+W)	M	-	Rp	Rp	R	A
RGT Accroc	FEED		✓	✓	-	M-S (+W)	M	-	R	R	R	A
RGT Cesario	FEED		✓	✓	-	M-S (+W)	M	-	R	R	R	AL

Head colour: W = white, R = red. Head type: A = awned, AL = awnless.

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