CULTIVARS FOR QUALITY PERENNIAL PASTURES
Your guide to Quality Perennial Pastures

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Decision Tool
The following tool can be used to help you make a decision about which cultivar to choose to best suit your farming needs.
It’s outstanding in the field

• Selected for Australian conditions
• Long season, high-yielding production
• Outstanding summer, autumn and winter production
• High quality late feed
• Rust tolerant

**ONE50** is a new generation late-heading perennial ryegrass. Selected for Australian conditions, **ONE50** has outstanding dry matter production and its yield potential is best realised in fertile, productive conditions. **ONE50** is ideal for producing high quality feed for silage and hay. Due to **ONE50**’s late-heading characteristics, it makes late-spring and early-summer pasture management easier. It maintains vegetative leaf production during this time. This contrasts with most early to mid-heading ryegrasses which require good grazing management to control seed head production through this period. **ONE50** offers farmers reliability, dependability and quality when they need it.

* **ONE50** with AR37 endophyte may give rise to higher incidences of ryegrass staggers amongst sheep. For further information on AR37, including animal health and production information see page 12, visit [www.ar37.com.au](http://www.ar37.com.au) or contact your local Agricom territory manager or distributor.

Compared with other cultivars **ONE50** has demonstrated excellent drought tolerance and recovery during the 2006/07 drought:

This trial site in Hamilton, Victoria was sown in autumn 2006 and this photograph shows the site in August 2007. Autumn recovery and winter growth was outstanding. It is clear that **ONE50** coped exceptionally well with the harsh conditions.

| Ploidy: | Diploid |
| Heading Date: | Late |
| Endophyte Options: | SE, AR1, AR37* |
| Sowing Rate (kg/ha): | 18-20kg with clovers & herbs |
| When to Sow: | Autumn & spring |
| Prime Growing Times: | Summer, autumn & winter |
| Best Grazing Practice: | Rotational grazing |
| Sow With: | • TRIBUTE, PRESTIGE & WILL white clovers • COLENSO red clover • CHOICE chicory • TONIC plantain |

**Figure 1.** Seasonal and annual production of 5 perennial ryegrass cultivars. Mean of 3 years. Warragul, VIC. Trial sown 20 April 2005

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>Yield % (Relative to Trial Mean = 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Year 1</td>
</tr>
<tr>
<td>ONE50</td>
<td>110</td>
</tr>
<tr>
<td>Impact</td>
<td>105</td>
</tr>
<tr>
<td>Matrix</td>
<td>106</td>
</tr>
<tr>
<td>CANNON</td>
<td>99</td>
</tr>
<tr>
<td>Cordoba</td>
<td>81</td>
</tr>
<tr>
<td>Trial mean (=100)</td>
<td>19504</td>
</tr>
<tr>
<td>LSD</td>
<td>10</td>
</tr>
</tbody>
</table>
The reliable perennial flyer

- Strong establisher
- Strong autumn growth and winter vigour
- A versatile, general-purpose ryegrass for sheep and beef
- Provides grazing flexibility
- Excellent tolerance to dry conditions

KINGSTON has established a reputation as one of the leading proprietary perennial ryegrasses. It has the ability to be productive and persistent over a wide range of soil conditions (e.g. it tolerates and remains productive in acidic soils) and rainfalls, including harsh, dry climates. KINGSTON also has excellent stem rust tolerance. These traits, and its higher tiller density and rapid recovery after grazing make KINGSTON suitable for all types of farming systems.

KINGSTON is suited to all forms of grazing management, with maximum dry matter production achieved under rotational grazing.

KINGSTON’s production and persistence under a wide range of conditions make it an ideal long-term perennial pasture option. It has the versatility of being suitable for all classes of stock, especially sheep and beef, and to a wide range of grazing regimes and climatic conditions.

SAMSON is an ideal general-purpose perennial ryegrass due to its low stem production in late-spring and summer, and strong summer and autumn dry matter production. It excels under sheep and beef grazing. It is one of the most widely-tested AR1 varieties available.

SAMSON is also available with the new endophyte AR37, which offers improved resistance to insects (e.g. Black Beetle, Root Aphid, Pasture Mealy Bug).

SAMSON performs well in drier environments and exhibits strong tolerance to Crown Rust. This ensures quality of growth on offer. It is an ideal pasture for use in irrigated or spring/summer rainfall areas.

SAMSON was bred for persistence, production and disease tolerance.

* For further information on AR37, including animal health and production information see page 12, visit www.ar37.com.au or contact your local Agricom territory manager or distributor.
Optimum quality all-year-round

- **Tetraploid** for optimum feed quality
- **Very late heading date**
- **Available with AR37* endophyte** for persistence and pasture production advantages
- **Strong year-round growth in temperate regions**

**HALO** was bred by combining the best tetraploid perennial ryegrass genetics, with the majority originating from north-west Spain. This provides Halo with strong winter growth, summer production and persistence in summer moist/irrigated regions.

**HALO** should be used where farmers require maximum performance from a tetraploid, perennial pasture. It can be used in all regions, but longevity and production will be optimised in areas with good summer rainfall or irrigation, on soils with good fertility and drainage.

**HALO** should be used in situations where a high-quality ryegrass is required. As with any tetraploid ryegrass, persistence may be compromised through repeated close grazings in droughts, or pugging damage.

**HALO** is recommended for dairy and sheep/beef farms that are requiring high animal productivity.

**HALO** was the first tetraploid perennial ryegrass available with AR37 endophyte. This allows farmers to choose a ryegrass which will not only maximise animal performance, but will also have resistance to more insects with improved persistence in many environments.

**HALO** with AR37 endophyte will survive and produce better than many cultivars where there is insect pressure, especially Black Beetle, Pasture Mealy Bug and Root Aphid.

* For further information on AR37, including animal health and production information see page 12, visit [www.ar37.com.au](http://www.ar37.com.au) or contact your local Agricom territory manager or distributor.

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**Quality tetraploid ryegrass**

- **High yielding ryegrass**
- **Very strong cool-season production**
- **Mid to late-heading tetraploid ryegrass**
- **Available with AR1 and AR37* endophytes**

**OHAU** is the latest generation of tetraploid long rotation ryegrass. It has 75% perennial and 25% Italian ryegrass genetics. **OHAU** has a mid to late heading date and was bred for high-production and quality.

**OHAU** is a long-rotation ryegrass that has strong winter and early-spring activity. This allows **OHAU** to contribute valuable growth in the critical early-lambing and calving periods. **OHAU** is an extremely palatable grass with a high feed value. **OHAU’s** palatability results in pastures with a high green leaf content over summer.

**OHAU** is the ideal option for high quality, medium to long-term pastures, in conditions suited to tetraploid ryegrasses.

**OHAU** is also available with the new AR37 endophyte, which offers improved resistance to insects (e.g. Black Beetle, Root Aphid, Pasture Mealy Bug).

* For further information on AR37, including animal health and production information see page 12, visit [www.ar37.com.au](http://www.ar37.com.au) or contact your local Agricom territory manager or distributor.
The new standard for drought tolerance

- Excellent persistence
- Reliable drought tolerance
- High winter and spring production
- MaxP® endophyte technology for greater production and persistence**

**FLECHA MaxP®** tall fescue is a highly winter-active Mediterranean-type fescue. It is extremely drought tolerant and persistent.

**FLECHA MaxP®** becomes dormant during hot, dry summers, but recovers quickly in autumn, winter and spring. For these reasons it is ideally suited to regions with consistently dry and hot summers, where persistent pastures are required.

**Should I use FLECHA MaxP®- summer-dormant Mediterranean tall fescue?**

**Yes** - if you farm in an area with hot, dry summers and greater than 400mm annual rainfall

**Yes** - if you usually have long periods (2 months plus) of dry soils, or high temperatures (30°C+) over summer and autumn

**Yes** - if you need good production of quality pasture over autumn-winter-spring

**Yes** - if you have wet or acidic soils not ideally suited to phalaris or lucerne

**Yes** - if you want a perennial winter-feed alternative to annual crops

**No** - if being fed to horses **

* Sheep trials on **FLECHA MaxP®** have been conducted with no negative effects on animal health identified. **FLECHA MaxP®** has also been extensively used on a number of sheep and beef properties with no negative impacts on the health of sheep and beef reported.

**FLECHA MaxP®** must not be used for the grazing of horses and conserved feed including **FLECHA MaxP®** must not be fed to horses. **FLECHA MaxP®** might cause serious adverse health effects in horses.
Unique combination of quality and protection

• Very high summer and autumn production
• Late heading
• Good tolerance to droughts, water-logging and saline conditions
• Proven to increase milk production
• Available with MaxP® endophyte

In hot environments, where some soil moisture is available, ADVANCE can continue to grow when ryegrass has gone into ‘green drought’ mode.

ADVANCE has been increasingly used on irrigated dairy farms as water becomes more precious. ADVANCE utilises water more efficiently than perennial ryegrass, making for more animal production (e.g. milk) from the same amount of water.

ADVANCE has also been very successful as a high-quality finishing pasture for lambs, beef cattle and dairying herds. An important feature for these farm types is ADVANCE’S superior compatibility with clover and herbs when compared to ryegrass. With its palatable leaves, animals can consume more forage.

Table 1. Milk production from tall fescue and perennial ryegrass in summer, University of Melbourne, Terang, 2003

<table>
<thead>
<tr>
<th></th>
<th>Perennial Ryegrass</th>
<th>ADVANCE Tall Fescue (Nil Endophyte)</th>
<th>Difference of ADVANCE over Perennial Ryegrass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk Production (Litres/cow/day)</td>
<td>9.8</td>
<td>13.1</td>
<td>+34%</td>
</tr>
</tbody>
</table>

Persistence with quality

• Persistent and heat tolerant
• Fine-medium leaf size
• Mid-late flowering
• Available with MaxP® endophyte
• Good rust tolerance

JESUP MaxP® is a very persistent and heat-tolerant tall fescue. It provides year-round production whenever soil moisture allows. JESUP is finer-leaved and more densely tillered than standard tall fescues.

JESUP MaxP® has good feed quality and palatability. JESUP has been successful in harsher environments, where other cultivars have failed to persist, providing an ideal balance between production and persistence.

Figure 1. The persistence of Jesup without MaxP® versus other tall fescues after 3 years, QDPI Muddapilly, Queensland

JESUP (without the MaxP® advantage) showed greater persistence than similar varieties. The addition of MaxP® novel endophyte will also enhance the persistence and performance of this cultivar.
First choice for thoughtful, progressive farmers

- Rapid establishing, persistent, drought-tolerant dryland species
- Valuable autumn-winter production
- High quality and leafy in summer
- High production levels with strong response to improved soil fertility
- Excellent compatibility in mixes with other pasture species - non aggressive

**KARA** is a very user-friendly cocksfoot, with good winter growth and production during dry periods. The upright, non-aggressive nature makes it ideally compatible with ryegrass, legumes and herbs. **KARA** captures the opportunity for cool-season production in summer-dry farming systems. It also shows excellent resistance to stem and leaf rust. Frequent rotational grazing or managed set stocking will allow for a productive, palatable and endophyte-free pasture.

**KARA** is best used as a component of a perennial pasture mix. It will provide important dry matter production during dry periods and in cooler months. **KARA** has been productively managed as the sole grass species in areas where perennial ryegrass has failed to persist.

| Heading Date: | Late |
| Sowing Rate (kg/ha): | 6-8kg in a pure sward |
| When to Sow: | Autumn & spring |
| Prime Growing Times: | Autumn, winter, spring |
| Leaf Size: | Fine - medium |
| Best Grazing Practice: | Rotational grazing |
| Sow With: | • TROPHY & PRESTIGE white clovers |
| | • COLENSO red clover |
| | • CHOICE chicory |
| | • TONIC plantain |

**The chicory of choice**

- True perennial with good persistence
- Improved dry matter production
- High summer quality
- Increased cool season growth
- Ideal for long-term ‘finishing’ pastures

**CHOICE** is a longer-rotation cultivar bred to provide high dry matter production, improved cool-season growth and recovery after grazing. **CHOICE** has performed well in trials, exhibiting good growth and persistence. **CHOICE** is ideally suited to all grazing enterprises due to its consistent year-round production.

**CHOICE** is the preferred chicory variety to use in mixes with perennial ryegrasses.

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Table 1. Dry matter production of cocksfoot in a dryland situation, NSW Agriculture, Bega, 1999-2000. Yield relative to trial mean = 100.

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>Relative Yield Year 1 (%)</th>
<th>Relative Yield Year 2 (%)</th>
<th>Total of 2 years (kgDM/ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KARA</td>
<td>107</td>
<td>111</td>
<td>16507</td>
</tr>
<tr>
<td>Currie</td>
<td>96</td>
<td>100</td>
<td>14852</td>
</tr>
<tr>
<td>Porto</td>
<td>97</td>
<td>90</td>
<td>14109</td>
</tr>
<tr>
<td>Trial mean (kgDM/ha=100)</td>
<td>100</td>
<td>100</td>
<td>15156</td>
</tr>
</tbody>
</table>
The flexible forage herb

• Valuable year round production
• Source of key minerals - calcium, sodium, copper, selenium
• Degree of drought tolerance due to deep coarse root system
• Strong cool-season growth
• Suits wide range of environments and soil conditions

**TONIC** plantain is a valuable pasture component, particularly in drier regions and less fertile conditions. **TONIC** has a similar yield potential and suits similar management systems to ryegrass.

A 20-25 day rotation will maintain seed head palatability through spring and summer. Plantain is a fast-establishing species, and will be productive and persistent over a wide range of soils and climate conditions. It appears to tolerate quite acidic soil and it exhibits useful growth in cold winter conditions.

**Combining production and persistence**

• High dry matter production
• High stolon density
• Suited to a wide range of farm types
• Persistent under hard grazing
• Bred in Victoria, Australia

**TRIBUTE** can play a role in all perennial pastures. It has excellent persistence and production under hard grazing. It is suited to many climates and can be successfully blended with PRESTIGE white clover to enhance nitrogen fixation and protein intake in pastures for grasses and grazing stock.
Persistence and reliable production

- High stolon density
- Heat and drought tolerant
- Persistent
- Year round production

| Leaf Size: | Medium-small |
| Perenniality: | Perennial |
| Sowing Rate (kg/ha): | 2-4kg when sowing with grasses and other clovers |
| Stolon Density: | High for a medium-leaved white clover |
| Growth Habit: | Dense, spreading |
| Management: | Suits all grazing regimes |

PRESTIGE is suited to a variety of grazing regimes and can play a role in all perennial pastures; alone, or in combination with large-leaved white clovers. It is used in general purpose pastures for set stocking and in summer-dry pastures. PRESTIGE is also appropriate for use in brassica, herb and clover crops. It can be broadcast or aerial-sown.

Adaptable to a wide range of climates

- Bred in New South Wales
- Medium-large leaf with good overall yield
- Strong summer performance
- Enhanced tolerance of summer moisture stress

| Leaf Size: | Medium-large |
| Perenniality: | Perennial |
| Sowing Rate (kg/ha): | 2-4kg when sowing with grasses and other clovers |
| Stolon Density: | High |
| Growth Habit: | Compact, leafy |
| Management: | Suits all grazing regimes, ideally suits rotational grazing |

TROPHY is suited to perennial ryegrass pastures on the tablelands, irrigated and coastal regions. TROPHY is also suitable for summer-active tall fescue pastures on the tablelands as well as all irrigated farms. TROPHY is the latest generation white clover from the joint NSW Agriculture and AgResearch breeding programme in Northern NSW.

TROPHY is a clover with strong summer performance and improved overall yield. It has been bred to be adapted to a wide range of Australian climates, and to persist under common grazing practices. TROPHY has shown superior performance in trials from NSW to Victoria.
Large leaf contribution to quality

- Strong summer growth
- Improved heat tolerance
- High tolerance to Root Knot Nematode
- Resistance to Stem Nematode

**WILL** white clover plays an important role in dairy and beef systems with warm, summer-moist conditions. **WILL**'s large leaf and upright growth provides an excellent contribution to dry matter production under rotational grazing and hay/silage management.

Improved heat and drought tolerance

- Improved seasonal distribution of production
- Better persistence under grazing
- Performs in dry conditions
- Early-mid flowering

**COLENSSO** has good persistence in dry conditions and good summer production in summer-moist areas. It has the ability to grow during the cooler periods of the year. It is ideally suited to finishing pastures and for supplementary production of hay/silage. It is also well suited for use in all perennial pastures.
Gaucho® for improved establishment and dry matter production.

- Gaucho 600 Flowable Seed Dressing Insecticide is registered for the control of a variety of early season pests
- Stress Shield™ activity associated with Gaucho often means a positive growth response may be seen even in the absence of pests
- Gaucho starts working the moment the seed is planted
- The activity of Gaucho around and within the seed, roots and leaves protects the young seedling during the vulnerable establishment stage
- Gaucho is safe to beneficial species that are important in modern farm production systems when used as directed.

AR37 for Production and Persistence Advantages

AR37 endophyte provides significant agronomic advantages over all ryegrass endophytes currently available in Australia where there is insect pressure.

Are there any animal health issues associated with AR37?

Although AR37 does not contain lolitrem B it can cause ryegrass staggers. Trials have shown that on average the frequency, duration and severity of ryegrass staggers is less than for standard endophyte. However on occasions, sheep (and potentially other animals) grazing AR37 ryegrass may be severely affected for short periods. To date no ryegrass staggers have been reported on class of cattle grazing on AR37 ryegrass. Due to the fact that research has only been with sheep and cattle, pasture or conserved feed made from AR37 endophyte ryegrass should not be fed to other stock classes, including deer and horses.

For further information on AR37, including animal health and production information visit www.ar37.com.au or contact your local Agricom territory manager or distributor as listed below.

Contact Details:

DISTRIBUTORS
Agricom cultivars are proudly distributed by:

AusWest Seeds  Forbes  02 6852 1500
Brisbane  07 3272 9577
Armidale  02 6772 2343

Stephen Pasture Seeds  VIC, SA  03 5335 8055
Smyth Seeds  VIC, Sth NSW  03 5762 5288
Roberts Ltd  TAS  03 6393 6060
Irwin Hunter & Co  WA  08 9383 4708

For further information & advice contact one of our territory managers or visit our new website: www.agricom.com.au

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