Reaping rewards from Bounty

Plentiful feed and increased milk production for VIC dairy herd thanks to Pasture Genetics Bounty Forage Sorghum.

Brassica invaluable to lambing operation

Pasture Genetics Subzero Hybrid Forage Brassica delivers impressive weight gain in young ewes
Spring provides a window of opportunity to increase forage availability to all classes of livestock.
Pasture Genetics Bouncer Hybrid Forage Brassica in the Midlands region of Tasmania, providing a quick feed option for grazing lambs.

At Pasture Genetics we are so confident in our seed genetics and the quality of our proprietary products, we will replace seed at half the original purchase price if it fails to establish satisfactorily.

Unfortunately establishment failures can occur, so Pasture Genetics Establishment Guarantee™ program* is available for the vital 30 day period after planting, and provides growers with substantial savings should they need to replant their paddocks.

Pasture Genetics is the only forage company in Australia to offer Establishment Guarantee™. Plant with peace of mind and the support of Pasture Genetics.

Register at pasturegenetics.com within 30 days of planting to participate in the program.

* Terms and Conditions apply.
There are a range of options for farmers across Australia following a late autumn plant and a cold winter, with low pasture growth rates. Give spring forage production a go.

Spring provides a window of opportunity to increase forage availability to all classes of livestock.

Forage brassica crops are grown to provide valuable, high-quality feed in spring through to autumn when other paddock feed can be limiting. This enables farmers to finish prime lambs or steers, or to carry breeding stock with minimal supplementary feeding. Rapid to establish, there is a speedy turnaround from sowing to grazing.

Forage brassicas have high digestibility, good protein and low effective fibre levels, so with access to some form of roughage prime lambs and steers can achieve very high average weight gains and finish quickly for a profit.

With Crude Protein levels ranging from 20 to 28 per cent, Pasture Genetics Subzero Hybrid Forage Brassica can also be used to achieve more value from lower-quality fodder or dry standing feed, and is an excellent option for a runoff paddock near the brassica to get better results.

Sowing forage brassicas also provides an excellent opportunity to clean up and prepare paddocks for pasture renovation. Subzero offers numerous benefits to a renovation program, including offering high-quality feed while allowing an excellent opportunity for weed control and a helpful disease break in the soil.

If you are facing a feed deficit from a late autumn plant and a cold winter with slow pasture growth rates, I say give Subzero a go this spring and reap the reward of the abundant spring feed potential in a short time to grazing.

Lucerne is the most crucial perennial legume species for spring sowing and establishment. It is remarkably drought resistant thanks to its deep root system, yet has a large capacity for production under irrigation and in favourable seasons.

This feature makes it relatively independent of the primary season of rainfall and means that it will thrive in northern as well as southern areas of Australia, if other conditions are satisfactory. Late winter to early spring is the ideal sowing window for semi-dormant lucerne varieties such as L56 and GTL®60. As soil temperatures start rising, they have a huge capacity to establish and produce considerable available forage for all classes of livestock.

Once GTL®60 has established with its low set crown, it will persist and produce valuable forage for years to come, being one of the most persistent lucerne cultivars ever bred in Australia. Lucerne will not solve your short-term feed demands like a forage brassica, however, it can future-proof your property to better deal with adverse seasonal conditions.

With millets in short supply and at relatively high prices, look hard at the alternative in Bounty Forage Sorghum. With the prospect of multiple grazing events, or hay and silage cuts, Bounty produces large quantities of feed over an extended production window.

Due to Bounty’s deep-rooted nature, it is more tolerant to moisture stress in the event of extended dry periods during summer. Bounty has aggressive tillering after grazing which results in an overall increase in dry matter production, and it can be continually grazed, ensiled or taken through as a quality baled hay product.

In most parts of Australia, its been a tough winter. That is why I’ve suggested a few robust spring options in Subzero Hybrid Forage Brassica, L56 or GTL®60 Lucerne or Bounty Forage Sorghum.

Give spring forage production a go – these varieties will turn around a tough situation in a short period.

Happy sowing.
Goldstrike®

At Pasture Genetics, we are always looking to new technology – constantly striving to improve our offering – bringing the latest technology, with even better performance to our leading forage products.

**Goldstrike®**

Pasture Genetics Goldstrike® includes rhizobia inoculation, micronutrient package and Apron® XL fungicide (where available on label). Goldstrike® is comprised of the highest quality seed and coating technology and is the best establishment package for pasture legumes.

**Goldstrike LongLife®**

Goldstrike LongLife® offers extended rhizobia storage life on a range of species. Goldstrike LongLife® can provide up to six months storage life on medic and sub clover, and up to 12 months storage life on lucerne.

**XLR8™**

XLR8™ treatment is a film coat application of Poncho® Plus insecticide.

Poncho® Plus is a significant advancement in the seed treatment market. It is an innovative insecticidal seed treatment that has registration across a range of pasture species and forage crops.

Goldstrike LongLife® can provide up to six months storage life on medic and sub clover, and up to 12 months storage life on lucerne.

**Poncho® Plus**

Poncho® Plus combines two robust compounds, imidacloprid and clothianidin, which increase the insect control spectrum above other seed treatment options. Poncho® Plus provides protection during establishment against a range of pests including Redlegged Earth Mite, Cutworm and Lucerne Flea. Poncho® Plus also offers added establishment vigour in the early growth stage of the plant.

The benefits from our XLR8™ seed treatment not only comes in the form of insect protection, but also shows long term benefit in assisting early seedling plant growth. This is demonstrated with greater root system development in seedlings, leading to higher overall pasture establishment and long-term pasture production.

Our XLR8™ seed treatment comes standard on all brassicas, herbs, and our premium proprietary lucerne varieties. Our XLR8™ seed treatment can be applied upon request to all seed products where registration is applicable.

<table>
<thead>
<tr>
<th>Poncho® Plus Comparison Chart</th>
<th>SEED TREATMENT</th>
<th>BARE SEED AND FOLIAR SPRAY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Poncho® Plus</td>
<td>Poncho® Plus</td>
</tr>
<tr>
<td></td>
<td>Broadleaf Pasture</td>
<td>Grass Pasture</td>
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<tr>
<td>Redlegged Earth Mite</td>
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</tr>
<tr>
<td>Lucerne Flea</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Blue Oat Mite</td>
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<td>✓</td>
</tr>
<tr>
<td>Cutworm</td>
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<td>✓</td>
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<tr>
<td>Yellowheaded Cockchafer</td>
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<tr>
<td>African Black Beetle</td>
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<td></td>
</tr>
<tr>
<td>May offer Stress Shield™ benefits</td>
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<td>✓</td>
</tr>
<tr>
<td>Up to four weeks systemic protection for emerging seedlings</td>
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<td>✓</td>
</tr>
<tr>
<td>Protection against some soil pests</td>
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<td>✓</td>
</tr>
<tr>
<td>Low impact on beneficial species</td>
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<td>✓</td>
</tr>
<tr>
<td>Targeted chemical placement</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Where available on label ** Six months storage life on medic and sub clovers, and up to 12 months storage life on lucernes.
Susan Heinjus
INTERNATIONAL BUSINESS COORDINATOR

After 27 years in the wool, wine and food export sector, Susan knows a thing or two about managing the day-to-day challenges of international business – and admits “a problem shared is a problem halved”. Organised, generous-spirited, with a good sense of humour she understands the intricacies of export processes and is committed to continuous improvement and systems excellence.

Age: Fifty-something…58
Pets: A dog called JJ.
Years at Pasture Genetics: Almost three
Saying I live by: “Sharing is caring”
My role in one sentence: To receive, schedule, arrange and monitor both export and import orders.

Last thing I Googled: Things to do in Victor Harbor
Favourite app: Wish – I do love to shop!
Last book read: A trashy magazine on the flight to China.
Social network I use the most: Facebook
Tech gadget that changed my life: iPad! It’s easier to read from than a mobile phone.

What I enjoy most about my work: The challenge of pulling everything together to meet a deadline, and my awesome colleagues.
What motivates me to work hard: To meet customer and employer expectations… and a pay rise!? 
What I find most interesting about agriculture: Learning about the different processes and requirements to export seed.

What challenges I face day-to-day: Finding answers to all the questions and ensuring stock, tests, vessels and packing schedules all come together.

The key to maintaining a successful long-term partnership with international buyers: Being easily accessible and responsive, and having both a business and a friendly personal relationship.

My greatest strength is: My loyalty
And greatest weakness is: That I can be socially awkward.
The virtue I most admire in people is: Kindness
My guilty pleasure is: Chocolate!
The best thing about being a grandparent is: Being able to spoil the grandkids rotten without having to deal with the consequences!

A travel experience on my bucket list: Until recently, it was to go to the Port Adelaide AFL game in China (tick!). Next on the list is a trip to Fiji!

If I could invite any three people to a dinner party: Robbie Williams, Brad Pitt and the Port Adelaide AFL team (they count as one, right?!)
And I would cook: Slow cooked pork roast or a barbeque.
### ML99 MultiLeaf®

**Lucerne**  
Medicago sativa  
Winter Activity 10  
Min Rainfall (mm) 250

<table>
<thead>
<tr>
<th>Seeding Rate</th>
<th>kg/ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dryland</td>
<td>4-8</td>
</tr>
<tr>
<td>High Rainfall/Irrigation</td>
<td>10-20</td>
</tr>
<tr>
<td>Hay production</td>
<td>25-30</td>
</tr>
</tbody>
</table>

**Seed Treatment**  
Goldstrike LongLife® XLR8™

- ML99 MultiLeaf® Lucerne has been developed to incorporate a new level of quality and production in winter active lucerne. This increase in production is driven by high expression of multi-foliolate leaves, plus all the qualities currently required by lucerne growers.
- Growers looking for winter grazing with options to cut quality hay.
- Very highly winter active cultivar.
- Near to 100 per cent true to type multifoliate expression.
- 40 per cent more leaflets than conventional lucerne.
- Superior stand life based on broad disease and nemathode resistance.
- Frost tolerant to protect cold season production.

### L92

**Lucerne**  
Medicago sativa  
Winter Activity 9  
Min Rainfall (mm) 350

<table>
<thead>
<tr>
<th>Seeding Rate</th>
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<tbody>
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</table>

**Seed Treatment**  
Goldstrike LongLife® XLR8™

- L92 Lucerne is set to become the leading winter active variety for the dual purpose hay and grazing markets.
- Selected for triple-race anthracnose resistance.
- Highest forage yield in the highly winter active group.
- Excellent seedling vigour to aid in quick establishment.
- High resistance to multiple pests and diseases.
- Increased persistence for a highly winter active lucerne.
- Very quick regrowth after cutting or grazing.
- Ideally suited to wide range of soil types.

### L71

**Lucerne**  
Medicago sativa  
Winter Activity 7  
Min Rainfall (mm) 350

<table>
<thead>
<tr>
<th>Seeding Rate</th>
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<tbody>
<tr>
<td>Dryland</td>
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</tbody>
</table>

**Seed Treatment**  
Goldstrike LongLife® XLR8™

- L71 Lucerne was formed from the partnership between the New South Wales Department of Primary Industries lucerne breeding program and Pasture Genetics.
- L71 Lucerne out performs its predecessor Genesis by four per cent on average in both dryland and irrigated conditions.
- Tested for all three races of anthracnose.
- Dryland specialist targeting grazing and hay production.
- L71 Lucerne has demonstrated excellent grazing tolerance with 65 per cent residual plants after three years of grazing.
- Excellent persistence in low rainfall dryland conditions.
- High forage quality and leaf retention.

### L91

**Lucerne**  
Medicago sativa  
Winter Activity 9  
Min Rainfall (mm) 350

<table>
<thead>
<tr>
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</tr>
</tbody>
</table>

**Seed Treatment**  
Goldstrike LongLife®

- The easy-grow winter active lucerne.
- Extended grazing and hay in autumn and winter.
- Best in cropping rotations and dairy pastures.
- Preferred variety for winter sowing.
- Outstanding seedling vigour for quicker establishment.
- Suitable for all areas, with exceptional productivity on red brown earth and other light soils that are tolerant of saline conditions.
- High resistance to Spotted Alfalfa Aphid, Colletotrichum Crown Rot, and Fusarium wilt, and is highly resistant to Phytophthora root rot.
- Price competitive option to Sequel.

### Q75

**Lucerne**  
Medicago sativa  
Winter Activity 7  
Min Rainfall (mm) 350

<table>
<thead>
<tr>
<th>Seeding Rate</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Dryland</td>
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<tr>
<td>Hay production</td>
<td>25-30</td>
</tr>
</tbody>
</table>

**Seed Treatment**  
Goldstrike LongLife® XLR8™

- The “Q” in Q75 Lucerne signifies the variety has demonstrated superior quality characteristics in laboratory tests and animal feeding trials.
- Q75 has set a new benchmark in forage quality for the Australian lucerne industry with the highest forage quality, Relative Feed Value (RFV) for the Australian lucerne industry with the highest forage quality, Relative Feed Value (RFV)
- Q75 Lucerne demonstrates high expression.
- Excellent seedling vigour to aid in quick establishment.
- High resistance to multiple pests and diseases.
- Increased persistence for a highly winter active lucerne.
- Very quick regrowth after cutting or grazing.
- Ideally suited to wide range of soil types.

### L70

**Lucerne**  
Medicago sativa  
Winter Activity 7  
Min Rainfall (mm) 350

<table>
<thead>
<tr>
<th>Seeding Rate</th>
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</tr>
<tr>
<td>Hay production</td>
<td>25-30</td>
</tr>
</tbody>
</table>

**Seed Treatment**  
Goldstrike LongLife®

- L70 Lucerne offers higher disease and pest package compared to Aurora.
- Superior forage genetics - higher leaf to stem ratio.
- Minimum 90 per cent germination standards exceeds current minimum certified standard for Aurora of only 60 per cent.
- L70 Lucerne seed production is derived from dryland seed production stands only. This ensures the dryland integrity and performance of L70 Lucerne is maintained when utilised in dryland grazing enterprises.
- These attributes, combined with superior plant genetics, makes L70 Lucerne an excellent new alternative to Aurora.
### GTL®60

**Medicago sativa**  
Winter Activity: 6  
Min Rainfall (mm): 350

**Seeding Rate**  
- Dryland: 4-8 kg/ha  
- High Rainfall/Irrigation: 10-20 kg/ha  
- Hay production: 25-30 kg/ha

**Seed Treatment**: Goldstrike LongLife® XLR8™

- Selected for a broad and low-set crown, high forage values, high ruminant palatability with high disease, and pest resistance ratings.
- Tested under an arduous series of strict grazing protocols over five years.
- Ideally suited as a dual-purpose variety for grazing and hay operations.
- Quick recovery after defoliation gives the ability to store plant energy into the crown.
- Retain leaf through the drying and baling process.
- Good adaptability to a wide range of soil types.
- GTL®60 Lucerne has demonstrated excellent grazing tolerance with 74 per cent residual plants measured after three year grazing trial.

### L56

**Medicago sativa**  
Winter Activity: 5  
Min Rainfall (mm): 350

**Seeding Rate**  
- Dryland: 4-8 kg/ha  
- High Rainfall/Irrigation: 10-20 kg/ha  
- Hay production: 25-30 kg/ha

**Seed Treatment**: Goldstrike LongLife® XLR8™

- The master dual purpose grazing and hay lucerne in Australia.
- Exceptional seedling vigour.
- Very high yields.
- Exceptional forage quality.
- New industry benchmark for persistence.
- Flexible management option.
- Highest levels of pest and disease resistance of any lucerne variety in Australia. Phytophthora root rot rating of HR+.
- Semi-winter dormant.
- Adaptable across a wide range of soil types.
- Very good grazing tolerance.

### Q31

**Medicago sativa**  
Winter Activity: 3  
Min Rainfall (mm): 450

**Seeding Rate**  
- Dryland: 4-8 kg/ha  
- High Rainfall/Irrigation: 10-20 kg/ha  
- Hay production: 25-30 kg/ha

**Seed Treatment**: Goldstrike LongLife® XLR8™

- Quickly been adopted as the leading hay and chaffing variety for premium markets.
- A superior leaf retention trait, and the highest nutritive value in retained leaf in feed and hay. High yields and excellent quality for grazing, silage, hay and chaff.
- Demonstrates greater persistence than winter active varieties, when persistence is more important than winter growth.
- Bred for specialist irrigated haymaking, silage or chaff, where premium quality is required and where hay cannot be made in winter.
- Ideally suited to leaders in forage quality.

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**Fat lambs delivering a fat cheque on the Fleurieu**

By Rehn Freebairn

With an interest in pushing the boundaries and a nose for technology, generational farmer Alistair Just did his research to ensure he had the most profitable fat lamb enterprise on the Fleurieu Peninsula, South Australia.

Located just north of Myponga, Alistair runs a self-replacing merino flock. To have productive pastures year-round, investment in irrigation, nutrition and livestock management are all important considerations, as well as his pasture choice.

Alistair selected Pasture Genetics GTL®60 Lucerne for its grazing tolerance, high-level production, supreme quality and robust pest and disease package.

Given he commences lambing in July, the increase of grazing lambs coincides perfectly with the feed demand placed upon GTL®60 by the thriving lambs. Leading up to lambing, there is still an abundance of high-quality feed. Ewes are easily maintained and in good condition. “Through winter there is really good growth, and the ewes are doing well,” Alistair said.

Irrigation efficiency is an important factor in this operation given the expense associated, so during peak growth demand, the entire system is rotated on tight timelines. “Throughout the year there can be 700 sheep grazing at any given time, so we need year-round feed so when the lambs drop it is all go,” he said.

“We’re using less water though our permanent irrigation compared to travel irrigation in the district and working off a 17 day rotation.

“The lambs are being weighed regularly to ensure the target weights are being met and not overshot.

“Over summer, we maintained 900 lambs grazing over a 20-hectare irrigation paddock, putting on 350 grams a day, which I was pretty happy with,” Alistair said.

Image: Alistair Just in GTL®60 Lucerne, Fleurieu Peninsula, South Australia.
Good management and variety selection a winning combination

By Hugh Graham

Darryl Sippel is delighted with the quality of hay he regularly achieves with Pasture Genetics L56 Lucerne, which he has been growing in the Lockyer Valley, South-East Queensland for several years.

He admits growing quality Lucerne hay has a lot to do with management, but appreciates the fine stem and leafy product L56 continues to deliver.

Darryl says that L56 has a fine enough stem not to require a conditioner as much as other varieties. He also notes that he is surprised by its winter vigour, despite being a winter dormant variety. Darryl is also impressed by the yields, particularly through the winter period.

Darryl’s chaffing business sees him distributing his product all over the region, including to the Magic Millions horse sale on the Gold Coast, where he has several repeat buyers who are highly satisfied with the quality of hay and chaff produced.

Darryl maintains that if the lucerne is cut during the day and raked that night (always in the same direction), it reduces damage to the leaf.

In the summer, Darryl has his L56 hay cut, baled and in the shed within just three days. Mechanical damage is one of the largest contributors to a loss of yield in hay production, so these management techniques greatly improve the efficiency of Darryl’s operation.

The last few years have seen a rapid increase in the cost of production, with power costs alone rising by $10 a bale just to cover irrigation.

On top of this, the region hasn’t received its average annual rainfall in several years, and as such, Darryl’s bore water is decreasing in supply and quality.

This highlights the importance of using superior quality lucerne varieties such as L56 that regularly display toughness and durability, allowing growers to get the most out of every dollar spent.

Image: L56 Lucerne displaying a remarkable ability to retain a fine stem and plenty of green leaf in the Lockyer Valley, Queensland.
Live Weight Gain Trial 2014

Throughout the duration of the trial, all varieties were exposed to the same environmental conditions and assessed equally by being grazed simultaneously by three grazing groups of steers; one group on each variety at any time. With each cattle group grazing each different variety for a four week rotation, this allowed us to exclude the differences in the grazing performance of the different cattle groups from being a variable factor.

An irrigated six hectare paddock paddock was divided into 12 half-hectare sections. On the May 23, four of these sections were each sown with L71 Lucerne, Aurora, and SARDI 7 Series 2.

Sowing rate was 15 kilograms per hectare.

24 Hereford steers were split into three grazing groups of eight steers, with an average starting weight of 299 kilograms.

The three groups simultaneously grazed each of the varieties throughout the duration of the trial.

The trial ran for 12 weeks, in which each variety at least would be grazed for a four week duration by each of the four grazing groups.

No other sources of feed or supplements were given to the animals.

DISCUSSION

Throughout the duration of the trial, all varieties were exposed to the same environmental conditions and assessed equally by being grazed simultaneously by the three grazing groups of steers; one group on each variety at any time. With each cattle group grazing each different variety for a four week rotation, this allowed us to exclude the differences in the grazing performance of the different cattle groups from being a variable factor.

The trial focused on the true variable being the variety of lucerne that was being grazed. During the trial measurements on dry matter production of the varieties were also taken, as well as samples taken for feed quality analysis. All varieties established well, and the cattle performance in the first four week rotation was good all round. Prior to the trial commencing there was a very dry early spring period, without much natural rainfall. The trial was irrigated, but there was still a lack of soil moisture deep in the soil profile and this caused some periods of moisture stress between watering.

This resulted in particularly the second rotation showing a drop off in dry matter production from all varieties, but also daily weight gain in the Aurora and SARDI 7 Series 2. However, dry matter production and weight gain began to increase again in the third rotation across all varieties.

The results indicate that the L71 Lucerne was able to maintain quality and resulted in higher levels of intake during these times. The feed analysis shows a lower percentage of ADL and NDF values, this could likely account for the higher levels of kilograms per day weight gain achieved by the L71 Lucerne throughout the trial. The results are consistent with the key features of L71 Lucerne; which is a highly persistent and high quality variety, able to perform in both irrigated and dryland conditions that are less than ideal.

First, second and third rotation

<table>
<thead>
<tr>
<th></th>
<th>First rotation</th>
<th>Second rotation</th>
<th>Third rotation</th>
</tr>
</thead>
</table>

Average kg/dm/ha/day

<table>
<thead>
<tr>
<th>Variety</th>
<th>Average Kg/DM/ha/day</th>
<th>First rotation</th>
<th>Second rotation</th>
<th>Third rotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>L71</td>
<td>62</td>
<td>57</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Aurora</td>
<td>67</td>
<td>52</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>SARDI 7 Series 2</td>
<td>60</td>
<td>57</td>
<td>57</td>
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</table>

Average kg/day weight gain

<table>
<thead>
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<th>Variety</th>
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<th>First rotation</th>
<th>Second rotation</th>
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<tbody>
<tr>
<td>L71</td>
<td>1.27</td>
<td>1.26</td>
<td>1.71</td>
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<tr>
<td>Aurora</td>
<td>1.20</td>
<td>0.97</td>
<td>1.53</td>
<td></td>
</tr>
<tr>
<td>SARDI 7 Series 2</td>
<td>1.26</td>
<td>1.07</td>
<td>1.41</td>
<td></td>
</tr>
</tbody>
</table>
The trial was sown May 25, 2015.

Three replicates were sown for each variety.

All varieties were initially sown at 15 kilograms per hectare.

The trial was irrigated, and treated as a high production trial, aiming for six to seven cuts per year, for assessing overall forage yield.

Forage quality measurements were taken throughout spring and summer, 2016/17. Four quality measurements of freshly cut lucerne were taken prior to whole plot forage yield cuts being made.

Each cut was made 28 days following the previous cut, all varieties were cut at the same time.

The results are average of 12 samples - four cuts per variety, with three replicates of each variety per cut.

This trial assessed the standing forage quality of many commercial lucerne varieties as two-year-old lucerne stands; as well as examining other key factors – percentage of crude protein (CP) present, metabolizable energy (ME) as megajoules per kilogram (MJ/kg) of dry matter (DM), and digestibility characteristics.

The relative feed value (RFV) of each variety was calculated. The RFV is an index value that ranks feed based on the potential digestible dry matter intake.

The RFV value is calculated by comparing the digestible dry matter of the variety; using the percentage of acid detergent fibre (ADF) with the dry matter intake estimate of the variety, using the percentage of neutral detergent fibre (NDF).

The equation used for RFV calculation is as follows:

$$RFV = \frac{(88.9 - 0.779*ADF)}{(120/NDF)}/1.29$$

The RFV does not consider the percentage of CP or other nutrient factors, but does give a good indication of the quality of the forage in regard to its value to the grazing animal in terms of digestibility, and allows for an indexed value to be used when comparing different forage quality results of a number of varieties.

Varieties such as Q31 Lucerne and Q75 Lucerne have shown their characteristic quality traits clearly in this trial; both varieties were developed to produce high quality forage.

The samples were taken from fresh cut forage prior to cutting for forage yield; there would be greater differences again if the varieties were tested after going through a mechanical hay making process, as varieties such as Q31 Lucerne and Q75 Lucerne, maintain higher RFV values due to their high leaf holding traits. A typical lucerne hay or silage feed sample would have a lower RFV rating, and lower percentage of CP and ME values than shown on this chart, as these were fresh cut pasture with very little leaf loss, compared to what would normally be, after mechanical harvesting.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Dormancy</th>
<th>CP%</th>
<th>ADF%</th>
<th>NDF%</th>
<th>DMD%</th>
<th>ME</th>
<th>RFV</th>
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</thead>
<tbody>
<tr>
<td>Q31 Lucerne</td>
<td>3</td>
<td>30.8</td>
<td>21.4</td>
<td>26.2</td>
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<td>11.8</td>
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<td>5</td>
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<td>Genesis</td>
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<tr>
<td>Titan 9</td>
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<td>27.4</td>
<td>32.0</td>
<td>71.5</td>
<td>10.7</td>
<td>196.4</td>
</tr>
<tr>
<td>L91 Lucerne</td>
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<td>25.1</td>
<td>25.4</td>
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<td>70.0</td>
<td>10.4</td>
<td>196.6</td>
</tr>
<tr>
<td>L92 Lucerne</td>
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<td>26.5</td>
<td>26.7</td>
<td>31.5</td>
<td>71.4</td>
<td>10.7</td>
<td>201.1</td>
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<tr>
<td>SARDI Ten Series 2</td>
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<td>69.9</td>
<td>10.4</td>
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<tr>
<td>SF Force 10</td>
<td>10</td>
<td>25.8</td>
<td>27.0</td>
<td>34.6</td>
<td>70.3</td>
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<tr>
<td>ML99 MultiLeaf Lucerne</td>
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<td>11.3</td>
<td>211.1</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>27.4</td>
<td>24.7</td>
<td>30.9</td>
<td>73.4</td>
<td>11.0</td>
<td>210.5</td>
</tr>
</tbody>
</table>
The selection of lucerne cultivars with high leaf holding capacity such as Q31 Lucerne, allows for higher relative feed value results, as demonstrated in this trial.

The ability for green cut lucerne to hold its leaf into the bale is critical when making premium quality hay. Mechanical losses at time of baling range from eight to 45 per cent. When targeting high quality lucerne hay, it is paramount to select varieties with such leaf holding traits. Q31 Lucerne demonstrates excellent leaf retention in the bale.

Left: Q31 Lucerne after baling.

Right: Replicated lucerne plots, lucerne feed quality trial.
Pasture Genetics has taken the term ‘grazing tolerant’ very seriously with its selection of new lucerne material. The ability to select plant germplasm through a five year intensive grazing trial, has proven critical to give farmers confidence in new lines coming through the Pasture Genetics lucerne breeding program. The strength of this trialling model will be replicated in the future with more selections being made with this key grazing tolerance trait.

The trial protocol was established in conjunction with NSW DPI and IP Australia to give a measure of true grazing tolerance. After the lucerne was established it was grazed every three weeks (or when grazing was required) to a residual height of about 30 millimetres. Approximately 20 Merino wethers were used to graze the trial each time, this was the number of animals adequate to graze the trial down within at least a three to four day period so we could manage frequent grazing events but not expose the lucerne to extended periods of set stocking.

The basis of this grazing management was to make sure the lucerne was put under frequent grazing pressure, but not deliberately set stocked. In the first three year period the trial was grazed 32 times, and in the recent two year period was grazed 18 times.

Plant counts were taken initially and results have been measured based on the percentage of residual plant counts remaining after the three and five year periods.

Originally the trial was established at a dryland sowing rate of four kilograms per hectare resulting in an average starting plant count of 37 plants per metre square, which suited our target of 30 - 40 plants per metre square based on our average annual 420 millimetres rainfall.

The results shown in the graph on this page now indicate the updated results after five years of the trial period which has shown some significant differences in the performance of varieties, and quite a variation in the results that were seen after the three year period was measured, in particular some of the Highly Winter Active material has distinctly dropped off in the recent two years.
**L70 v Aurora Comparison**

2011 | MULTIPLE TRIAL SITES

L70 Lucerne offers higher disease and pest package compared to Aurora.

Superior forage genetics - higher leaf to stem ratio.

Minimum 90 per cent germination standards exceeds current minimum certified standard for Aurora of only 60 per cent.

L70 Lucerne seed production is derived from dryland seed production stands only. This ensures the dryland integrity and performance of L70 Lucerne is maintained when utilised in dryland grazing enterprises.

These attributes, combined with superior plant genetics, makes L70 Lucerne an excellent new alternative to Aurora.

L70 Lucerne offers producers higher returns and allows them to plant with confidence knowing they are covered by the Establishment Guarantee™ program*.

---

**Germination Standards Comparison**

<table>
<thead>
<tr>
<th></th>
<th>GOLDSTRIKE® L70</th>
<th>COATED AURORA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seeds/kg</td>
<td>300,000</td>
<td>300,000</td>
</tr>
<tr>
<td>Seeds sown/m² at 4kg/ha</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>Minimum germination %</td>
<td>90%</td>
<td>65%</td>
</tr>
<tr>
<td>Variable seeds/m² sown</td>
<td>108</td>
<td>78</td>
</tr>
<tr>
<td>Established rate 50%</td>
<td>54</td>
<td>39</td>
</tr>
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</table>

▲ 38 per cent increase in plant establishment per square metre

---

**Disease Rating Comparison**

<table>
<thead>
<tr>
<th>Disease</th>
<th>L70</th>
<th>AURORA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spotted Alfalfa Aphid</td>
<td>HR</td>
<td>HR</td>
</tr>
<tr>
<td>Bluegreen Aphid</td>
<td>HR</td>
<td>HR</td>
</tr>
<tr>
<td>Phytophthora Root Rot</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Anthracnose</td>
<td>R</td>
<td>MR</td>
</tr>
<tr>
<td>Bacterial Wilt</td>
<td>R</td>
<td>LR</td>
</tr>
<tr>
<td>Stem Nematode</td>
<td>R</td>
<td>R</td>
</tr>
</tbody>
</table>

---

**YIELD RESULTS AND PRICING COMPARISON**

L70 Lucerne offers very competitive pricing to Aurora and therefore similar per hectare input seed costs.

<table>
<thead>
<tr>
<th></th>
<th>L70 LUCERNE</th>
<th>AURORA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total yield</td>
<td>18.5 t/ha</td>
<td>17.0 t/ha</td>
</tr>
<tr>
<td>Hay returns/ha at $200t</td>
<td>$3,700/ha</td>
<td>$3,400/ha</td>
</tr>
</tbody>
</table>

▲ Extra hay returns $300 per hectare, per year

Source: Pasture Genetics, L70 Lucerne Grazing Trial, 2011, Penfield Research Station
Five years. Four irrigated sites. 46 cuts
Locations: Virginia SA, Struan SA, Forbes NSW and Wagga Wagga NSW

---

**Extra hay returns $300 per hectare, per year**
### Callide

**Rhodes**  
*C. gayana*  
Min Rainfall (mm) **650+**  
**pH Range** 5.5-8

**Seeding Rate**  
Goldstrike® **6-12 kg/ha**

**Seed Treatment**  
Goldstrike XLR8™

- Drought tolerant.
- Later flowering than Katambora.
- Less cold tolerant than Katambora.
- Callide offers higher palatability compared to Katambora.

### Katambora

**Rhodes**  
*C. gayana*  
Min Rainfall (mm) **650+**  
**pH Range** 5.5-8

**Seeding Rate**  
Goldstrike® **6-12 kg/ha**

**Seed Treatment**  
Goldstrike XLR8™

- Very drought tolerant.
- Good salt tolerance.
- Tolerates heavy grazing.
- Not adapted to acid, infertile soils.
- Requires high fertility to persist.
- Poor tolerance of waterlogging.

### Gatton

**Panic**  
*P. maximum*  
Min Rainfall (mm) **650+**  
**pH Range** 5.5-8

**Seeding Rate**  
Goldstrike® **6-12 kg/ha**

**Seed Treatment**  
Goldstrike XLR8™

- Suits all soil types except heavy clays.
- Requires moderate to high fertility.
- Doesn’t tolerate waterlogging.
- Moderately drought tolerant.
- Suited to grazing and cutting.

### Bambatsi

**Panic**  
*P. coloratum*  
Min Rainfall (mm) **500+**  
**pH Range** 5.5-8

**Seeding Rate**  
Goldstrike® **6-12 kg/ha**

**Seed Treatment**  
Goldstrike XLR8™

- Suited to self-mulching, black clay soils.
- Tolerant of temporary waterlogging.
- Tolerant of moderate soil salinity.
- Cold tolerant and drought resistant.
- High forage quality.

Take care grazing wilted fresh growth as it may cause photosensitivity issues in young stock. Vaccinate your livestock, and ensure a clean water source is available at all times. Have your stock well fed, and leave three weeks after rain before grazing.

### Bisset

**Creeping Bluegrass**  
*Bothriochloa insculpta*  
Min Rainfall (mm) **650+**  
**pH Range** 5.5-8

**Seeding Rate**  
Goldstrike® **6-12 kg/ha**

**Seed Treatment**  
Goldstrike XLR8™

- Highly palatable perennial grass.
- Good drought tolerance.
- Persists on a wide range of soil types.
- Highly stoloniferous resulting in excellent ground cover.
- Withstands heavy grazing.
- Late flowering type, productive into late autumn.

### Premier

**Digitaria**  
*D. smutzii*  
Min Rainfall (mm) **650+**  
**pH Range** 5.5-8

**Seeding Rate**  
Goldstrike® **6-12 kg/ha**

**Seed Treatment**  
Goldstrike XLR8™

- Suited to light textured soils.
- Tolerates acid soils.
- Recruits well on lighter soils.
- Very palatable.
- Drought and frost tolerant.

---

**ALL OF PASTURE GENETICS SUBTROPICAL GRASSES COME STANDARD WITH OUR GOLDSTRIKE XLR8™ SEED TREATMENT**

Goldstrike XLR8™ is comprised of the highest quality seed and coating technology, and is the best establishment package for subtropical grasses. Please note, subtropical grasses are excluded from Pasture Genetics Establishment Guarantee® program.
Chicory in Gippsland
Pastures

With Nicole Frost
TERRITORY MANAGER
GIPPSLAND VIC AND TAS

Chicory is becoming increasingly popular throughout many areas of Gippsland, and it’s easy to see why. Whether it’s sown as an annual summer crop or included as part of a long-term pasture mix, chicory brings many benefits to any farming system.

Animal performance is unbeatable on chicory. Numerous on-farm results have shown that the highest live weight gains in lambs are achieved on chicory and legume mixes.

In dairy cows, milk fat content and total production have been shown to lift when grazing chicory as part of the pasture rotation. There are many scientific studies supporting these findings, which commonly attribute these results to a number of factors:

1. The extremely high feed quality of chicory, which can reach 12 megajoules of metabolizable energy and up to 24 per cent crude protein.
2. Chicory is highly digestible which reduces the rumen retention time, thereby increasing daily feed intake.
3. Chicory is also highly palatable and contains tannins which help to prevent bloat in cattle.
4. There are no significant animal health risks associated with feeding chicory.

Chicory has a much higher tolerance of many insect pests, in particular, diamondback moth. High insect pressure in traditional summer crops, such as forage brassicas and turnips, has seen a steep increase in the demand for options that are less prone to damage by feeding insects.

Reducing insect damage not only increases the yield and overall quality of the crop; it eliminates the need for insecticide usage – a time, cost and environmental saving.

Chicory is a summer-active herb. With a higher level of heat tolerance, it can provide excellent quality feed during the summer months when feed availability is typically low, or of poor quality.

Chicory is similar to lucerne in that it has a deep tap-root, capable of sourcing moisture from deep within the subsoil, making it highly tolerant to moisture stress. The critical benefit of chicory over lucerne is its ability to withstand higher levels of soil acidity and a more extensive range of soil types.

This makes it more adaptable to the high rainfall, acidic and heavy clay soils that are common throughout Gippsland.

There are two main types of chicory currently on the market. The first type is true perennials designed to persist for three or more years, and the second is short-term, or winter active types. Winter-active types are rapid to establish, providing valuable early feed and quick recovery after grazing. They are more tolerant of colder temperatures, but will become reproductive quickly in the spring as they rely on re-seeding to persist for longer than 12 to 18 months.

As the name suggests, perennial chicory is designed to last for several years. Most commonly, perennial chicory is sown in spring as a summer crop. It pairs perfectly with red clover which establishes well around the chicory plants, increasing ground cover and providing the chicory with a source of nitrogen.

To increase the winter activity of these paddocks, the crop is often over-sown the following autumn with Italian or perennial ryegrass, with or without additional clover. This provides the perfect base for an extremely high performing, long-term pasture that produces great quality, year-round feed.

It’s not just ryegrass and clover that pair well with chicory, the majority of commonly sown temperate species will also work well when planted in a mix. Options include tall fescue, cocksfoot, phalaris, plantain and lucerne, or short-term species such as forage brassicas, cereals or annual legumes.

While chicory is most commonly utilised for direct grazing, many farmers are now trialling chicory for fodder conservation. Good success has been achieved as pit or bale silage where it has been included with other forages like cereals, ryegrass and clover. Conservation as hay has been harder to master, as a low moisture content will cause chicory leaves to shatter.

If you are thinking about trialling chicory on your farm, there are many factors to consider. These include paddock selection and soil type, lime and fertiliser requirements, companion species, sowing rates and on-going management.

Talking to your local agronomist or Pasture Genetics territory manager can help you achieve the best possible results from your chicory pasture.
Rebound Forage Millet – fast, safe feed

With Jack Edwards
TERRITORY MANAGER
NORTH WEST AND CENTRAL NSW

Dryland summer forage production can be risky business in Central-West New South Wales, but is a risk worth taking when it can provide vital feed and necessary rest periods for perennial pastures through the harsh summer months.

Pasture Genetics Rebound Forage Millet is often the first summer forage producers will reach for, as it can be sown while soil temperatures are 14 degrees celsius and rising. In many areas, this can be up to a month earlier than forage sorghum, which requires a soil temperature of 16 degrees celsius and rising.

Rebound is known for its quick establishment and can be grazed as soon as six weeks after sowing. With moisture present, grazing intervals can be as quick as every four weeks. Rebound is also very responsive to rainfall even after a prolonged period of inactivity.

To get the most out of your Rebound, it should ideally be grazed between 20 to 30 centimetres high, as this is when it is most palatable and nutritious.

The goal when grazing Rebound is to always keep the plants below 50 centimetres before grazing, so keep this in mind when you are choosing paddocks. In a perfect world, you would put stock on Rebound and reduce it to 10 to 15 centimetres in height within two weeks and remove them. This will maximise regrowth and production.

In a dryland scenario, when moisture is beginning to run out, and you are experiencing a run of high summer temperatures, it is essential to get stock onto the paddock or cut the paddock to remove as much leaf area as possible.

This will extend the life of the millet by reducing the stress on the plant and reducing the risk of it producing a seed head, which will reduce quality and stunt the recovery post-grazing.

Rebound millet can be a safer summer forage option as it does not contain prussic acid (HCN). Too many times in the last three years I have seen producers in the Central-West choose to sow forage sorghum only to get one or two small rainfall events, never receiving the opportunity to graze the forage sorghum for fear of poisoning their livestock. Rebound, however, is safe to graze at all stages of development.

Nutrition, paired with proper grazing management, is key to maintaining and maximising the quality and quantity of feed produced by Rebound.

While it will tolerate and perform on poorer quality soils, it really thrives on high fertility soils. If the season is going with you, it is crucial to top up your nitrogen with an in-crop application to maintain the quality of the forage produced.

Companion planting with Rebound millet is another tool growers can use to extend the length and quality of feed in a paddock. In areas like the Slopes and Tablelands, or under irrigation, it is common to mix Rebound with Subzero Hybrid Forage Brassica, Balance Chicory and Ranger Plantain. These combinations can provide excellent finishing feed for prime lambs or weaners. The introduction of legumes such as red or white clover can also provide additional nitrogen to the Rebound.

In more marginal dryland areas of the Central-West, producers often mix Rebound with Cowpeas or Lab Lab. Once again, this can be a great option to improve the quality of the feed on hand. When choosing companion plants to sow with Rebound, it is important to think about your potential weed burden and how the combination of plants may affect your ability to effectively control problem weeds.

Rebound millet is also a good hay option. Below is a table with feed analysis on Rebound hay collected this year in the Central-West. The values for cereal hay and lucerne hay are the averages received for 2018-19 by the company running the analysis.

While millet hay is certainly not going to finish stock, it would be more than adequate for maintaining breeders or make the perfect addition to a fresh forage cereal paddock. The high levels of water-soluble carbohydrates can help to elevate the risk of lambing sickness and grass tetany.

With no shortage of bare paddocks across the Central-West this year, talk to your local rural store and have a crack at some Rebound this summer.
Achieving excellent results with Bounty Forage Sorghum and Rebound Forage Millet

**Bounty Forage Sorghum v Rebound Forage Millet**

<table>
<thead>
<tr>
<th>VARIETY</th>
<th>HEIGHT</th>
<th>ENERGY MJ/kg d.m.</th>
<th>CRUDE PROTEIN %</th>
<th>DIGESTIBILITY</th>
<th>TOTAL POTENTIAL YIELD d.m. T/ha</th>
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<tbody>
<tr>
<td>Bounty Forage Sorghum</td>
<td>0.9m</td>
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<td>19.9</td>
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<tr>
<td></td>
<td>1.5m</td>
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<td>14 - 20</td>
<td>59</td>
<td>14 - 20</td>
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<tr>
<td>Rebound Forage Millet</td>
<td>9.0</td>
<td>15.1</td>
<td>60</td>
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</table>

**Sowing rate kg/ha**

<table>
<thead>
<tr>
<th>VARIETY</th>
<th>Marginal dryland</th>
<th>GOOD DRYLAND</th>
<th>IRRIGATION</th>
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</thead>
<tbody>
<tr>
<td>Bounty Forage Sorghum</td>
<td>3 - 5</td>
<td>6 - 8</td>
<td>15 - 30</td>
</tr>
<tr>
<td>Rebound Forage Millet</td>
<td>3 - 5</td>
<td>6 - 8</td>
<td>30 - 40</td>
</tr>
</tbody>
</table>

- The trial was conducted under pivot irrigation.
- Six megaliters per hectare irrigation water applied over trial.
- Trial commenced on November 1 and finished on April 30.
- As indicated by the two feed test results at different cutting times, grazing Bounty Forage Sorghum earlier in the growth stage will result in better quality feed.

**Summer forage tips and tricks**

**Sorghum**
- A sorghum plant can be planted as soon as the soil temperature reaches 16 degrees Celsius, typically around Melbourne Cup Day.
- Graze at a minimum height of 75 centimetres, ideally graze before plant reaches 125 centimetres.
- Leave a residual height of 30 centimetres of growth for optimal recovery and regrowth.
- Do not graze plants with abundant quick regrowth or that are under severe stress.
- Best animal performance will be achieved when giving grazing animals access to lick blocks containing sulphur.
- Sorghum will keep producing fodder until the first frost, which can happen as late as May.
- A proper soil preparation is required with an even seed bed.
- For best results you need to pre-irrigate your soil then sow sorghum into moisture.
- The sown depth of sorghum seed can be varied, depending on soil structure you can plant it as deep as 100 millimetres.
- Sorghum can handle hot dry conditions and will utilise the smallest amount of water with great efficiency.

**Millet**
- The ground temperature for a millet plant needs to be 14 degrees Celsius and climbing.
- You can direct drill millet straight into a paddock to give quick bulk feed.
- You need to monitor moisture stress with millet. Millet will use water very quickly.
- There are no stock grazing issues with millet, but an alternative source of fibre is recommended.
- Sowing depth for millet should be around 12 millimetres.

**Benefits of Bounty Forage Sorghum**
- Averages six to nine tonnes per hectare making it higher yielding than millet.
- Good early growth.
- Quick recovery from grazing or cutting.
- High sugar content.
- Excellent water usage.
- Ability to handle heat stress.

**Fertiliser requirements**
- Sorghum and millet have a high requirement for N, sowing with a nitrogenous fertiliser is recommended, talk to your local agronomist for further recommendations.
- After each hay cut or grazing apply 50 kilograms per hectare of urea 46:0:0.

**TRIAL RESULTS**
Discussion
With the current shortage of cut fodder available, many of us are investigating what we can grow over the spring and summer period. Thanks to their quick growth habits, both millet and sorghum are excellent fits for filling this period.

Bounty Forage Sorghum is an excellent variety with its early vigour and prolific tillering ability. Sorghum can be planted once soil temperatures reach 16 degrees celcius and will keep growing until the first frost of autumn.

Rebound Forage Millet is a super-fast spring sown feed option for all livestock operations. A feature of this plant is its very rapid growth during the first eight to 10 weeks. In this period, it far out-yields other fodder crops. After sowing – once the soil temperature hits 14 degrees celcius – it can be grazed about six weeks later.

Rebound is a useful feed supplement during the hot summer months when the growth of permanent pasture may suffer. Regrowth of Rebound following grazing is very good if soil moisture and nitrogen levels are sufficient.

Bounty Forage Sorghum financial assessment

<table>
<thead>
<tr>
<th>SITUATION/TIMING</th>
<th>INPUTS</th>
<th>RATE</th>
<th>TOTAL</th>
<th>COST/HA</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knockdown</td>
<td>Total application rate</td>
<td>100 L/ha</td>
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<td>$60.00</td>
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<tr>
<td></td>
<td>Redox Ammonium Sulphate</td>
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<td></td>
<td>Glyphosate 450</td>
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<td></td>
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<td>Sowing</td>
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<tr>
<td></td>
<td>Bounty Forage Sorghum</td>
<td>20 kg/ha</td>
<td>200 kg</td>
<td>$144.00</td>
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<tr>
<td></td>
<td>Field Nutrition (kg/ha): N 11 P 22.8 S 1.2 Mn 0.02 Mo</td>
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<td></td>
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<tr>
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<td>Total</td>
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<td>Nitrogen application 100kgs</td>
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<td>Nitrogen application 100kgs</td>
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<td>$50.00</td>
<td>$500.00</td>
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Note: please allow for the cost of irrigation water in this budget if you plan to irrigate.

<table>
<thead>
<tr>
<th>RATE</th>
<th>TOTAL COST</th>
<th>LOW</th>
<th>MED</th>
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<td>$300.00/t</td>
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<tr>
<td>t/ha</td>
<td>$</td>
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<td>$</td>
</tr>
<tr>
<td>Dryland</td>
<td>6</td>
<td>60</td>
<td>68.38</td>
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<tr>
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<td>100</td>
<td>41.03</td>
<td>15,897.40</td>
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<tr>
<td>High input irrigation</td>
<td>18</td>
<td>180</td>
<td>22.79</td>
<td>31,897.40</td>
</tr>
</tbody>
</table>

Note: please allow for the cost of irrigation water in this budget if you plan to irrigate.
Differentiation

Due to its deeper and more extensive root structure, Sorghum has better water use efficiency than Millet. If budgeting for maximum forage yield, we would recommend allowing irrigation of six megaliths per hectare for Millet and four megaliths per hectare for Sorghum to achieve the best performance.

However, an important factor that you need to be mindful of is the animal health implications of grazing stressed sorghum. It can have highly adverse effects on livestock, so should be avoided at all costs.

Feed quality is comparable between the two when managed correctly. Both have an average metabolisable energy of between eight to 10 megajoules per kilogram of dry matter, provided you are maintaining good grazing height and keeping up with nutrient removal in the crop. Sorghum should be grazed between 75 centimetres and 110 centimetres, after 125 centimetres there can be a decline in palatability and feed quality.

The main difference in the two products is their yield potential, with high input sorghum capable of reaching over 16 tonnes per hectare of dry matter, compared to Millet toping out at around 12 tonnes per hectare of dry matter.

Disclaimer: Agworld pricing used as the industry average. For use as a reference only and not to be used as a recommendation. For best advice please contact your local agronomist.
**Bouncer**

*Hybrid Forage Brassica*

<table>
<thead>
<tr>
<th>Brassica napus</th>
<th>Life Span</th>
<th>&lt; 9 mths</th>
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</thead>
<tbody>
<tr>
<td>Min Rainfall (mm)</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

**Seeding Rate kg/ha**

- Dryland 3
- High Rainfall/Irrigation 5

**Seed Treatment** N/A

- Leafy turnip.
- Tetraploid turnip/Chinese cabbage cross.
- Quick gap fill to meet winter shortfalls.
- Excellent grazing partner to adjacent Subzero Hybrid Forage Brassica paddocks.
- Quick to first grazing.
- Fast recovery from grazing with excellent subsequent yields.
- Greater leaf production.
- More plants surviving after grazing.
- Greater regrowth.

---

**Balance**

*Chicory*

*Chicorium intybus*

<table>
<thead>
<tr>
<th>Life Span</th>
<th>2-3 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth</td>
<td>All year round</td>
</tr>
<tr>
<td>Min Rainfall (mm)</td>
<td>500</td>
</tr>
</tbody>
</table>

**Seeding Rate kg/ha**

- Dryland 3
- High Rainfall/Irrigation 5

**Seed Treatment** XLR8™

- Long term chicory.
- Rapid establishment and excellent winter growth.
- Autumn or spring sowing option.
- Useful as a hard grazing option in a rotational system.
- Excellent livestock weight gains.
- Pasture mix option.
- Good protein to energy rating.
- Resistant to Diamondback moth and white butterfly.

---

**Subzero**

*Hybrid Forage Brassica*

<table>
<thead>
<tr>
<th>Brassica napus</th>
<th>Life Span</th>
<th>12-18 mths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min Rainfall (mm)</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

**Seeding Rate kg/ha**

- Dryland 3
- High Rainfall/Irrigation 5

**Seed Treatment** XLR8™

- Leafy rape.
- Kale/turnip hybrid.
- Subzero Hybrid Forage Brassica has the ability to withstand frosts and retain green leaf.
- Early maturing – eight to nine weeks to first grazing, however, still retains quality if not grazed until 12-14 weeks.
- Multiple grazings providing high quality feed.
- High forage yields.
- If spring or summer sown, it has the ability to be carried through winter until the following spring.
- Excellent regrowth after frequent grazings, making it one of the most persistent forage brassica cultivars, while retaining leaf and stem quality with active regrowth throughout cool seasons, including frost periods.

---

**Rebound**

*Forage Millet*

*Echinochloa esculenta*

<table>
<thead>
<tr>
<th>Life Span</th>
<th>9 mths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min Rainfall (mm)</td>
<td>500</td>
</tr>
</tbody>
</table>

**Seeding Rate kg/ha**

- Dryland 10
- High Rainfall/Irrigation 10-15

**Seed Treatment** XLR8™

- Fast growing summer grass.
- Safe, good quality, palatable feed.
- Ideally suited to areas that constantly reach high temperatures over summer.
- Fast regrowth after grazing or cutting.
- Combines well with other summer active varieties such as red clover or Brassica.
- Plant on 14 degrees Celsius and rising soil temperature.
- Spring option only.

---

**Ranger**

*Plantain*

*Plantago lanceolata*

<table>
<thead>
<tr>
<th>Life Span</th>
<th>3-5 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Matter</td>
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<tr>
<td>Growth</td>
<td>All year round</td>
</tr>
<tr>
<td>Drought Tolerance</td>
<td>High</td>
</tr>
<tr>
<td>Min Rainfall (mm)</td>
<td>500</td>
</tr>
</tbody>
</table>

**Seeding Rate kg/ha**

- Dryland 1-3
- High Rainfall/Irrigation 4-8

**Seed Treatment** XLR8™

- Performs well in all ranges of fertility.
- Strikes faster than grasses.
- Good water use efficiency.
- Highly palatable and provides excellent livestock nutrition and performance.
- Good all year growth and higher cool season growth.
- Well balanced levels of crude protein, energy, and minerals.
- Higher levels of S, Ca, Na, Cu and B than grasses and some clovers.
- Excellent increases in livestock weight gains and decreased dagginess when used in a mix.

---

**Calibre**

*BMR Sorghum*

*Sorghum bicolor x sudanese*

<table>
<thead>
<tr>
<th>Life Span</th>
<th>9 mths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min Rainfall (mm)</td>
<td>500</td>
</tr>
</tbody>
</table>

**Seeding Rate kg/ha**

- Dryland 10
- High Rainfall/Irrigation 20-25

**Seed Treatment** XLR8™

- Early to mid maturing, Brown Mid Rib Sorghum/ Sudan grass hybrid.
- 12 gene BMR now delivering new high quality in the forage market.
- Low lignin – highly digestible feed. Lignin is indigestible in ruminants.
- Reducing the lignin results in higher feed intake and improved livestock weight gains. The traditional types that have wide stems also have high levels of lignin.
- Calibre BMR Sorghum offers this reduction trait that will give you better grazing, silage and hay results than conventional types.
- An increase in milk production by up to 20 per cent has been achieved with the BMR trait.
- Spring option only.
Bounty

Forage Sorghum
Sorghum bicolor x sudanese

Life Span 9 mths
Min Rainfall (mm) 500

Seeding Rate kg/ha
Dryland 10
High Rainfall/Irrigation 25

- Early to mid maturing, Sorghum/Sudan grass hybrid.
- Good cool soil tolerance.
- Excellent early vigour with prolific tillering characteristics.
- Suitable for sheep and cattle grazing enterprises.
- Makes good quality silage and hay.
- Low prussic acid potential.
- Plant on 16 degrees Celsius and rising soil temperature.
- Offers a new package with improved cold tolerance, early vigour, and prolific tillering characteristics. Bounty Forage Sorghum is a good all round forage option for grazing, silage, or hay.
- During the breeding process, Bounty Forage Sorghum was selected for its accelerated time to first grazing.
- Aggressive tillering after grazing, results in an overall increase in dry matter production.
- Spring option only.

Spring sown brassica invaluable to lambing operation

With Ian Freebairn

Image:
Don Pegler standing in his paddock of Subzero in June, after being oversown with Rocket Tetraploid Annual Italian Ryegrass ready for grazing.

Needing to put weight onto his young ewes before their second joining, Pasture Genetics Subzero Hybrid Forage Brassica has proven to be the perfect solution for Don Pegler.

Don runs “Cashmore Oaklea Maternal Composites” near Kongorong in the south-east of South Australia, and is selecting for high lambing rates along with other economic traits.

With the increased fertility of his flock, Don can join his ewe lambs to lamb down at 12 to 15 months of age, however, this requires considerable effort from the animals and can result in poor condition which affects the next joining.

Don decided to plant Subzero to fill the quality gap from late spring through summer to better prepare the ewes for joining, which begins at the end of January.

From 20 November, 700 second lambing ewes grazed a 10 hectare paddock with access to a 12 hectare run off paddock, until joining started at the end of January, reaching a 60.5 kilogram joining weight average.

Don said the plan had worked, with scanned in lamb rates up 20 to 30 per cent in this age group to 165 per cent, and intended to plant another paddock this year.

The 10 hectare paddock was sprayed out in mid-August and cultivated to provide a good seed bed; then Subzero was planted at five kilograms per hectare in mid-September.

Don sees this as a great tool in pasture renovation, as he can clean up many weeds with a spring seeding and prepare the paddock to go back to permanent pasture.

Don is running three ewes (scanned to multiple lambs) per acre on this block with no supplementary feeding, with the singles running on rougher pastures on another block.

Good pastures are a key profit driver in Don’s farming system, and Subzero has a good role to play in the future.

Subzero’s ability to deliver quality feed at the right time of the year is also crucial, and seen as huge benefit to Don – especially after a spring establishment.
Nicole Schryver of Bathurst, New South Wales, wanted a high production summer crop to fill the winter feed gap on her Central Tablelands property. Forging ahead where others said it would not work, she choose Pasture Genetics Bounty Forage Sorghum on a 3.5 hectare paddock.

The Bounty was sown with a combine seeder on November 5, at 28 kilograms per hectare with DAP fertiliser at 200 kilograms per hectare. After an Outback Forage Oats crop and one pass of the speed tiller, the paddock was pretty clean.

With soil temperatures above 17 degrees, everything was right for the Bounty to bounce out of the ground – and bounce it did!

Bounty is a sorghum cross Sudan grass hybrid, with an early to mid-maturity, excellent early vigour and prolific tillering characteristics. With low prussic acid potential and very high dry matter product, it is well suited to silage or hay making.

“We cut 78 bales on January 7 – I was impressed by that result,” Nicole said.

The Bounty was next cut on 8 March, with an impressive 153 bales off 3.5 hectares to finish the season off.

“We hit 100 bales, and they just kept coming,” said Nicole.

The crop received four to five light waterings over the growing season, but still did it tough at some stages throughout the year.

“That’s 231 bales at 66 bales per hectare over the short season, which equates to over 25 tonnes per hectare! “I’m super impressed with that number of bales, knowing we are going into a cold winter,” she said.

“I will be planting it again in this year’s rotation, as the paddock is now back in with Outbacks.”

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Farm contractor Tim Eyes, from the Central Coast of New South Wales, works closely with several property owners in his area.

On this occasion, he worked with a client at Jilliby to sow Pasture Genetics Rebound Forage Millet as a cover crop over the top of GTL®60 Lucerne, at a rate of 40 kilograms per hectare with a direct drill.

Sown at the end of October, the Rebound has performed well in a season of mixed weather patterns, not typical to the region. The additional bonus was the GTL®60 growing underneath, which provided high-quality grazing for the stock as well.

“From November through to March, my client was able to graze the Rebound three times, which he was very happy with,” Tim said.

Rebound is an exceptional summer feed option as it can be planted earlier than sorghums and does not have any similar animal health issues. The grazing recovery for Rebound lives up to its namesake, with rapid regrowth for repeat grazings.

Rebound is a very uniform crop that allows growers to put their stock back faster and get solid weight gains.

“I love the fact that Rebound is very fast to establish and gives my clients plenty of options across the growing season,” said Tim.

“We plan to cut the Rebound crop for silage around mid-April, giving my client some valuable winter feed when things become tight over the colder winter months.”

Bounty providing high-quality bulk feed

By Adam Little

Rebound proving an exceptional summer feed option

By Adam Little
As a contractor and property manager, Glenn Frost was searching for feed off the back of an average winter and spring rainfall total around Exeter, New South Wales.

Glenn decided to sow a blend that would provide him with rapid establishment and quick feed, with the ability to continue to supply valuable feed going into the following winter.

On 8 December, Glenn sowed Pasture Genetics Rebound Forage Millet and Subzero Hybrid Forage Brassica together across 10 hectares at a rate of 12 kilograms per hectare for the Rebound Millet, and three kilograms per hectare for the Subzero.

The blend was sown by direct drill and incorporated 125 kilograms per hectare of CROPLIFT® 15 fertiliser.

“Both the Rebound and Subzero germinated really well,” Glenn said.

The first grazing was on 2 February with 700 ewes and lambs. The Rebound was ready to graze and the Subzero had changed leaf colour, indicating it was safe for animal consumption.

“Talk about bulk feed!” exclaimed Glenn.

Rebound is a fast establishing summer crop which requires sowing once soil temperatures are above 14 degrees.

It results in several grazing opportunities over the summer and early autumn periods, and is known for its fast regrowth after grazing, allowing quicker turn around times to successive grazing.

Subzero is a 12 month option that provides high-quality grazing and weight gains.

As a rooted tap plant, it has added benefits of being able to draw water and nutrients from deeper in the soil profile and continues to grow well in the cooler months, including frost periods.

The added digestibility and protein concentration in the Subzero makes it an excellent complimentary species to summer grass.

As expected, the lack of rain over the summer slowed the growth, but it was grazed again in mid-March with great results.

On the back of early autumn, the Rebound and Subzero came away again, and Glenn is planning a late graze to finish off the millet for the season before soil temperatures finally drop.

“The Subzero is powering ahead, and I am looking at it to take us right across winter, as I will be broadcast spreading Jivet Tetraploid Annual Italian Ryegrass, to bulk up the paddock,” said Glenn.

“The blend of the Rebound and Subzero has been a fantastic.

“It really saved us over the summer period as we had nothing else left on the property.”

GLENN FROST
When water prices in the north of Victoria became economically challenging, Tim Lukies of Katamatite, Victoria switched to Pasture Genetics Bounty Forage Sorghum. In the past, Tim has been a regular millet grower to fill the summer feed gap for his dairy cows, but recently has seen a big difference in the shift to sorghum.

With the highest cost of production being irrigation, Tim began to trial different summer forage options for their water use efficiency and value. Bounty proved to have "much better quality and bulk, combined with better water use efficiency in a dry year," he said.

Tim found he could stretch the time between each watering event further with sorghum compared to millet. In his operation, some blocks were used to feed out to the milkers while he cut the others for hay. According to Tim, “quality was easy when managed properly.” By cutting and grazing the crop between 75 to 125 centimetres high, he could capture the optimum time for bulk without compromising quality.

“What was impressive was during the third week after grazing – it just took off,” Tim said. He had no issues with getting the cows onto the feed and saw the increase in milk production over the growing period. Bounty’s regrowth potential and speed to grazing was a major benefit in the tight rotations of Tim’s dairy farm.

With the increased bulk and reduction in water sage, Tim found he had an abundance of feed at numerous points throughout the crop life. With the excess, he decided to fill his shed with several cuts of hay. “Hay was easy, one rake and it was ready to go,” Tim said.

Tim is now a convert of Bounty in his operation, and can’t wait until the soil temperature reaches 16 degrees so he can commence seeding once again.

Image: Bounty Forage Sorghum providing plentiful feed to Tim Lukies dairy herd at Katamatite, Victoria.

“Hay was easy, one rake and it was ready to go”

TIM LUKIES

Reaping rewards from Bounty

By Tom McCooey

When water prices in the north of Victoria became economically challenging, Tim Lukies of Katamatite, Victoria switched to Pasture Genetics Bounty Forage Sorghum. In the past, Tim has been a regular millet grower to fill the summer feed gap for his dairy cows, but recently has seen a big difference in the shift to sorghum.

With the highest cost of production being irrigation, Tim began to trial different summer forage options for their water use efficiency and value. Bounty proved to have “much better quality and bulk, combined with better water use efficiency in a dry year,” he said.

Tim found he could stretch the time between each watering event further with sorghum compared to millet. In his operation, some blocks were used to feed out to the milkers while he cut the others for hay. According to Tim, “quality was easy when managed properly.” By cutting and grazing the crop between 75 to 125 centimetres high, he could capture the optimum time for bulk without compromising quality.

“What was impressive was during the third week after grazing – it just took off,” Tim said. He had no issues with getting the cows onto the feed and saw the increase in milk production over the growing period. Bounty’s regrowth potential and speed to grazing was a major benefit in the tight rotations of Tim’s dairy farm.

With the increased bulk and reduction in water sage, Tim found he had an abundance of feed at numerous points throughout the crop life. With the excess, he decided to fill his shed with several cuts of hay. “Hay was easy, one rake and it was ready to go,” Tim said.

Tim is now a convert of Bounty in his operation, and can’t wait until the soil temperature reaches 16 degrees so he can commence seeding once again.
Bouncer in the hills

By Tom McCooey

Rick McAlpin of Fort William at Caveat, Victoria, sowed his Pasture Genetics Bouncer Hybrid Forage Brassica in mid-October, in the hope of some summer rain to help finish his lambs after a harsh spring in 2018.

Receiving 120 millimetres of rain before grazing the first paddock in early December, Rick had a nice wedge of feed available for the freshly weaned lambs.

He was very impressed with how quickly the Bouncer got up and out of the ground, and with the quality of the feed. Rick described the lambs as being in “really good nick”.

From the first grazing until April, Rick only received another 30 millimetres of rain. However, due to the Bouncers’ impressive root system, the crop recovered exceptionally well, allowing another two grazes.

Towards the end of February, Rick moved in ewes to finish off the remaining growth left behind from the lambs.

To Rick’s surprise, he observed “little craters across the paddock,” where the ewes had dug up the top part of the root system, and were continually gaining condition from grazing on it.

Bouncer helped capitalise on the late season rains and provided good quality, fast feed for Rick’s weaning program.

By helping fill the feed gap across summer, it helps minimise the amount of supplementary feeding required across the summer months and allows him to retain conserved fodder for other periods of need.

Overall, Rick is pleased with how the crop turned out, and is sold on the advantages of mixing different brassicas into his program.

“I’d certainly do it again,” he said.
**Jackpot**

*Diploid Italian Ryegrass*

<table>
<thead>
<tr>
<th><strong>Lolium multiflorum</strong></th>
<th><strong>Heading Date</strong></th>
<th>+22 days</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Life Span</strong></td>
<td>&lt; 2-3 yrs</td>
<td></td>
</tr>
<tr>
<td><strong>Min Rainfall (mm)</strong></td>
<td>700</td>
<td></td>
</tr>
<tr>
<td><strong>Maturity</strong></td>
<td>Late</td>
<td></td>
</tr>
</tbody>
</table>

**Seeding Rate kg/ha**
- **Dryland** 10-15
- **High Rainfall/Irrigation** 25-30

- Jackpot Diploid Italian Ryegrass was bred by DLF Seeds’ Australasian breeding program.
- It was bred to replace long standing favourite Icon Diploid Italian Ryegrass. Testing has confirmed that Jackpot Diploid Italian Ryegrass successfully out yields Icon Diploid Italian Ryegrass by an outstanding 26 per cent and Knight by nine per cent.
- Its late heading date prolongs feed quality in spring, giving a greater opportunity to increase overall production.
- An excellent option for producers seeking high quality production, and manageability.
- Excellent long season production.
- Fine leaved cultivar, with improved growth in all seasons.

**Mona**

*Tetraploid Italian Ryegrass*

<table>
<thead>
<tr>
<th><strong>Lolium multiflorum</strong></th>
<th><strong>Heading Date</strong></th>
<th>+28 days</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Life Span</strong></td>
<td>2 yrs</td>
<td></td>
</tr>
<tr>
<td><strong>Min Rainfall (mm)</strong></td>
<td>700</td>
<td></td>
</tr>
<tr>
<td><strong>Maturity</strong></td>
<td>Late</td>
<td></td>
</tr>
</tbody>
</table>

**Seeding Rate kg/ha**
- **Dryland** 10-15
- **High Rainfall/Irrigation** 25-30

- Mona Tetraploid Italian Ryegrass is a replacement to Jeanne Tetraploid Italian Ryegrass.
- The objective of Pasture Genetics Forage Crop Program was to develop a cultivar with improved production in all seasons, and the ability to produce for two or more years in favourable climates. Testing has confirmed that Mona Tetraploid Italian Ryegrass has successfully out yielded Jeanne Tetraploid Italian Ryegrass by an outstanding 34 per cent.
- Mona Tetraploid Italian Ryegrass has a very late heading date. This extends the period in spring when producers can graze, or cut very leafy, high quality forage, by up to one month.
- It’s winter and early spring growth is not compromised by the late heading, that can occur in other late flowering Italian ryegrasses.
- Very late flowering +28 days, gives excellent long season production.
- Larger, bulkier, silage and hay cuts to build on farm feed requirements.
- Will produce for two or more years in favourable conditions.

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### Establishing Ryegrass Pastures in Spring

**By Ian Freebairn**

Spring can present an ideal opportunity to sow down perennial or Italian ryegrass-based pastures through much of the high-rainfall and irrigation districts of Australia.

As the days get longer and the soil temperature increases, ryegrass pastures will be rapid to establish, and either provide feed quickly or develop a strong root system for longer-term persistence.

As we transition from late winter into spring, many grazing enterprises will go into a feed surplus, where they are growing more feed than their animals can consume.

The timing of this feed surplus will vary on every farm and through different regions, but does present a great opportunity to take a poor performing paddock out of the system and establish a new pasture to improve production and profitability.

Existing pasture will continue to provide enough feed for stock in other paddocks on the farm at this time of the year.

One of the greatest benefits I see from spring seeding ryegrass is that most of the late flowering varieties need some vernalisation, so don’t go to seed until they have been through a winter.

This is especially valuable in high-production finishing systems or dairy where you get just over a year of high-quality production before having to deal with pastures going to seed. Staying vegetative also seems to give the plants more vigour, and they continue to grow better into summer as they are not diverting energy into seed production in the first year.

Most perennial pastures can be sown successfully in spring, but you do need to assess the local climate and how well the particular soil type will hang on into summer and whether it has sufficient moisture holding capacity.

Spring seeding can be higher risk than autumn, and this risk certainly goes up as the annual rainfall goes down. Quite often late winter achieves the same benefits with less risk.

Hard to control weeds that are slow or have staggered germination can be easier to control in spring than in early autumn.

Using techniques to stir up the seed bank and having a couple of shots at weed control before seeding is well worth considering for problem weeds. Waiting for weeds in the autumn before seeding is always a compromise; as soil temperatures drop, there will be a further delay to first grazing.

Spring seeding is not for everyone and can be higher risk, as you never know when the last rain for the season is going to fall. However, it can be another tool in the higher rainfall zones or for farmers with irrigation to maximise direct harvested feed of high quality and with good weed control.

Consider if it is an option for your operation and if in doubt, please contact your local Pasture Genetics territory manager for more information.
Produce more feed with Mona

By Nicole Frost

Merv Steer runs a beef breeding operation in the Yarra Valley, Victoria. The beautifully maintained property runs 340 Angus breeders on 788 acres of river flats and gentle slopes. To improve the productivity of the farm, Merv has been working with his agronomist to develop a program to renovate and improve the pasture.

Last year, a Pasture Genetics custom blend of Mona Tetraploid Italian Ryegrass, Renegade Red Clover and Jumbo White Clover was sown over 18 hectares. Merv has been exceptionally pleased with the results of this crop and is eager to point out how close the bales of hay were in the paddock.

“We cut 450 big round bales of hay from this paddock, which is more than we ever have,” he said.

Provided there is adequate moisture, Mona and Renegade are just as suited to spring sowing as autumn. This makes it a very attractive fodder option in years with late breaks. Appreciating the value of high quality, home-grown fodder this year more than most, Merv noted that “it has been beautiful hay to feed out and the cattle don’t leave any behind.”

After baling, a good shower of rain got the paddock back up and running.

The image above was taken on 30 January, and shows the amount of regrowth that can be achieved with Mona’s super late heading date of +28 days. After grazing a forage rape and millet crop, 154 steers were turned onto the Mona paddock.

“We topped them up with some silage and they lasted on the paddock until March. Their weight gains were excellent,” said Merv.

This still didn’t stop the Mona, and so cows and calves were introduced to the paddock. Merv believes that it has performed much better than the other Italian ryegrasses he has tried in the past.

“It did stay greener for longer, but the amount of feed it produced was just unbelievable,” he said.

A second paddock of the same custom blend was sown this year.
**Summer Feed**

- **Time to Grazing (weeks)**: 6-8
- **Height to Grazing (cm)**: 30-40
- **Time to Cutting (weeks)**: 6-8

**Seeding Rate**: 25-30 kg/ha

**Rebound Forage Millet**: 80%

**Renegade Red Clover**: 10%

**Subzero Hybrid Forage Brassica**: 10%

**Seed Treatment**: Goldstrike

- SDWsmart® Summer Feed Blend consists of brassica and red clover to provide high-quality production, with the addition of millet as the balancing fibre source. It can keep cows in lactation and consistent weight gains on young stock throughout the summer months when many other feed sources are dormant.

**Slopes and Plains**

- **Min Rainfall (mm)**: 650
- **Soil Type**: Light & Heavy

**Seeding Rate**: 3-8 kg/ha

**Premier Digit Grass**: 50%

**Gatton Panic Grass**: 25%

**Bambatsi Panic Grass**: 25%

**Seed Treatment**: Goldstrike

- A grass blend that is well adapted to a wide range of soil types. Establishing a grass only pasture allows hassle-free implementation of critical management techniques such as broadleaf weed control in the establishment year, and the introduction of legumes in subsequent years once the grasses have established satisfactorily.

- Excluded from Pasture Genetics Establishment Guarantee® program.

**Tropical Beef LS**

- **Min Rainfall (mm)**: 650
- **Soil Type**: Light

**Seeding Rate**: 6-12 kg/ha

<table>
<thead>
<tr>
<th>Forage Oats</th>
<th>50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forage Peas</td>
<td>50%</td>
</tr>
</tbody>
</table>

**Seed Treatment**: Goldstrike

- Well suited to light textured soils. Given favourable seasonal conditions, this blend can produce quality feed over a greater portion of the growing season.

- Excluded from Pasture Genetics Establishment Guarantee® program.

**Tropical Beef HS**

- **Min Rainfall (mm)**: 650
- **Soil Type**: Light & Heavy

**Seeding Rate**: 6-12 kg/ha

<table>
<thead>
<tr>
<th>Katambora Rhodes Grass</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Premier Digit Grass</td>
<td>30%</td>
</tr>
<tr>
<td>Gatton Panic Grass</td>
<td>25%</td>
</tr>
<tr>
<td>L70 Lucerne</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Seed Treatment**: Goldstrike

- Well suited to heavy soils, this blend combines robust grasses, perennial legumes and hard seeded annual medics. This blend will provide longevity while maintaining quality to meet the needs of your production system.

- Excluded from Pasture Genetics Establishment Guarantee® program.

**Spring Silage**

- **Time to Cutting (weeks)**: 14-16

**Seeding Rate**: 100-150 kg/ha

<table>
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**Seed Treatment**: Goldstrike

- A 50-50 split of Dunn Forage Peas and Outback Forage Oats that is ideal for late winter or early spring sowing. An excellent combination to produce large volumes of high-quality, high-energy silage within 14-16 weeks post-sowing.

**Spring Finishing**

- **Min Rainfall (mm)**: 300/irrigation

**Seeding Rate**: 10 kg/ha

<table>
<thead>
<tr>
<th>Renegade Red Clover</th>
<th>40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance Chicory</td>
<td>30%</td>
</tr>
<tr>
<td>Subzero Hybrid Forage Brassica</td>
<td>30%</td>
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</tbody>
</table>

**Seed Treatment**: Goldstrike

- An excellent quality, high production blend, ideal for finishing prime lambs or weaners.

**Summer Feed**

- **Time to Grazing (weeks)**: 6-8
- **Height to Grazing (cm)**: 30-40
- **Time to Cutting (weeks)**: 6-8

**Seeding Rate**: 25-30 kg/ha

**Rebound Forage Millet**: 80%

**Renegade Red Clover**: 10%

**Subzero Hybrid Forage Brassica**: 10%

**Seed Treatment**: Goldstrike

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**Slopes and Plains**

- **Min Rainfall (mm)**: 650
- **Soil Type**: Light & Heavy

**Seeding Rate**: 3-8 kg/ha

**Premier Digit Grass**: 50%

**Gatton Panic Grass**: 25%

**Bambatsi Panic Grass**: 25%

**Seed Treatment**: Goldstrike

- A grass blend that is well adapted to a wide range of soil types. Establishing a grass only pasture allows hassle-free implementation of critical management techniques such as broadleaf weed control in the establishment year, and the introduction of legumes in subsequent years once the grasses have established satisfactorily.

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</table>

**Seed Treatment**: Goldstrike

- Well suited to light textured soils. Given favourable seasonal conditions, this blend can produce quality feed over a greater portion of the growing season.

- Excluded from Pasture Genetics Establishment Guarantee® program.

**Tropical Beef HS**

- **Min Rainfall (mm)**: 650
- **Soil Type**: Light & Heavy

**Seeding Rate**: 6-12 kg/ha

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<tbody>
<tr>
<td>Bambatsi Panic Grass</td>
<td>20%</td>
</tr>
<tr>
<td>Gatton Panic Grass</td>
<td>20%</td>
</tr>
<tr>
<td>Bisset Creeping Bluegrass</td>
<td>10%</td>
</tr>
<tr>
<td>Cavalier Spineless Burr Medic</td>
<td>10%</td>
</tr>
</tbody>
</table>

| GTL®60 Lucerne | 10% |

**Seed Treatment**: Goldstrike

- Well suited to heavy soils, this blend combines robust grasses, perennial legumes and hard seeded annual medics. This blend will provide longevity while maintaining quality to meet the needs of your production system.

- Excluded from Pasture Genetics Establishment Guarantee® program.
“Bouncer helped capitalise on the late season rains and provided good quality, fast feed for Rick’s weaning program.”

RICK CALPIN, FORT WILLIAM, CAVEAT, VICTORIA
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