MEAT & LIVESTOCK AUSTRALIA

meatup FORUM

For the latest in red meat R&D

Feedbase – what is there?

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Nicon Rural Services

Outline

Touch on the fundamentals

- feed quantity
- feed quality
- animal performance

How these can be measured / manipulated (info/tools/approaches)

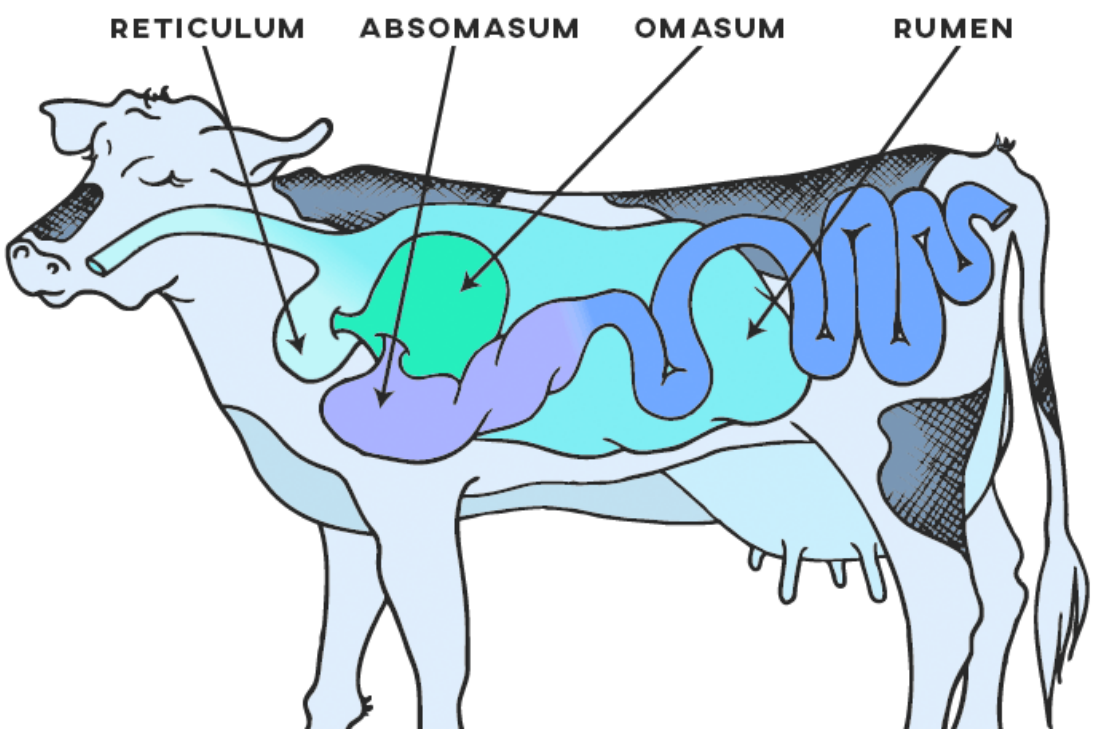
Best pasture species for my system

Setting the scene

Animal performan[illegible] [illegible]nergy an animal can ingest.

Rich in energy (quality)

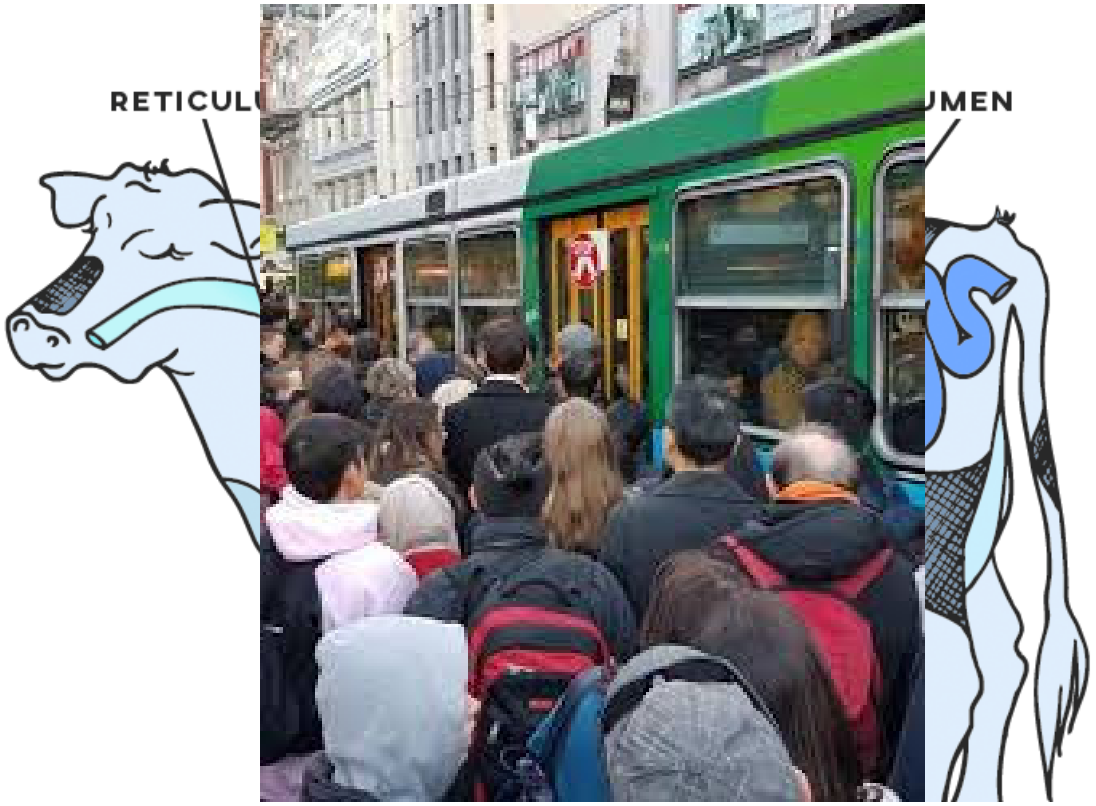
amount s (quantit[illegible])



Setting the scene

Low in energy (quality)

amount s (quantit

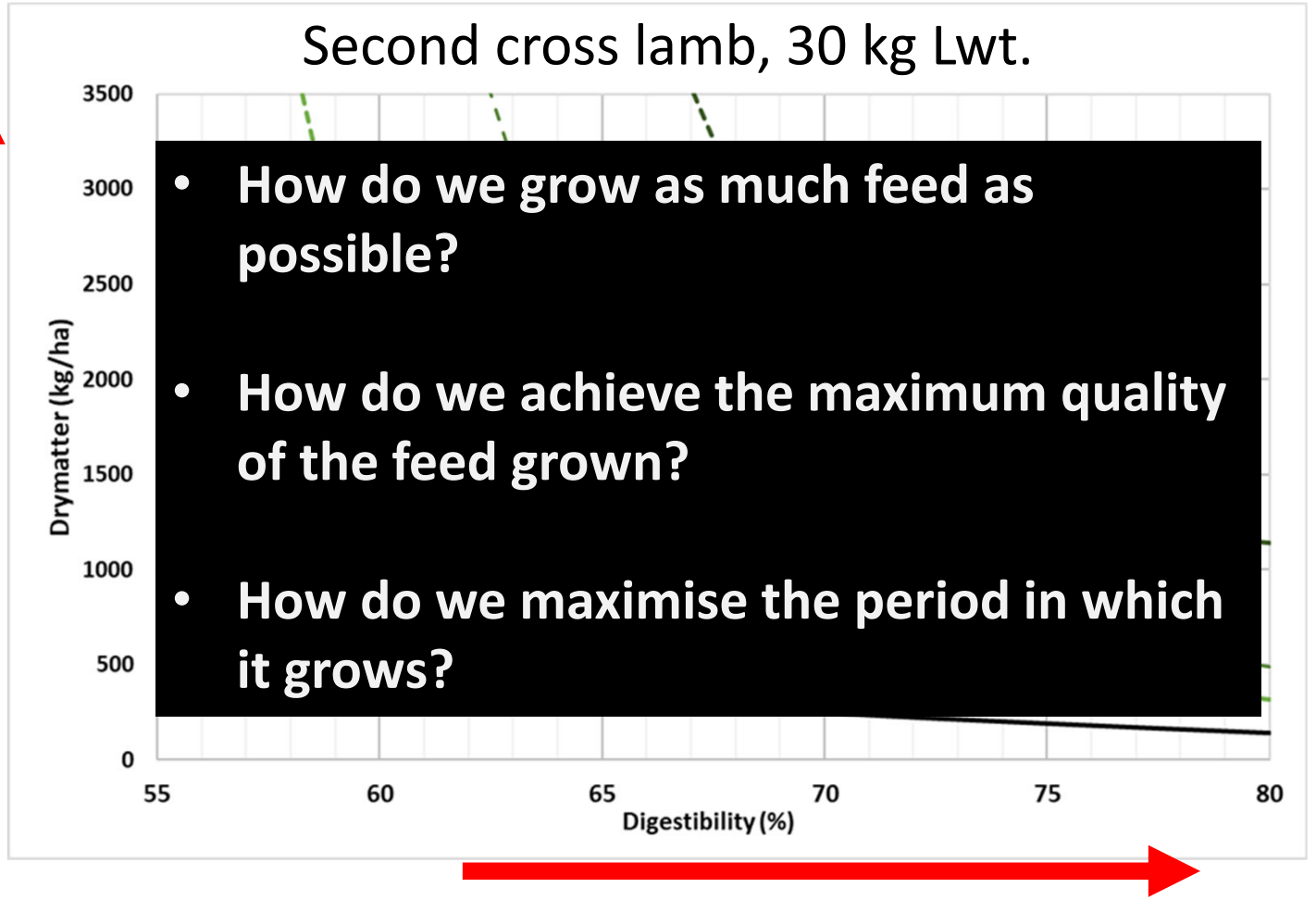


Setting the scene

Rich in energy (quality)

amount s (quantit

Setting the scene

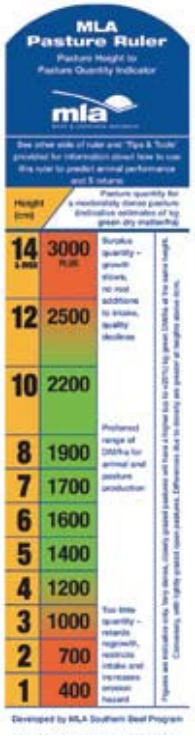


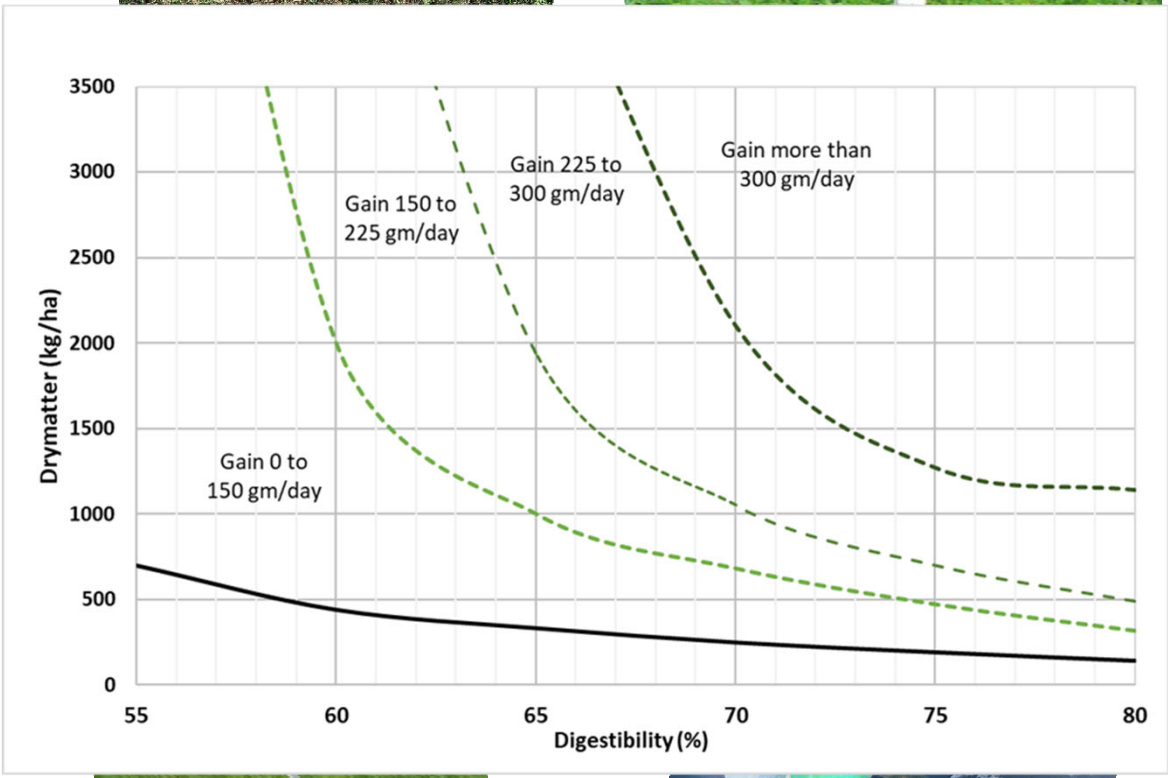
Measuring quantity

Quantity

(kg DM/ha)

Relationship between height and drymatter (density)





Measuring quality

Quality

(Digestibility (%) or
MJ ME/kg DM)

Relationship between digestibility and metabolisable energy

70% dig = 10 MJ ME/Kg DM and

+/- 5% digestibility is 0.8 MJ ME/Kg DM

Digestibility (%)	40	45	50	55	60	65	**70**	75	80
MJ ME/kg DM	5.2	6	6.8	7.6	8.4	9.2	**10**	10.8	11.6

Measuring quality

1. Green V brown

Digestibility (%)	40	50	60	70	80

Measuring quality

2. Leaf V stem

Digestibility (%)	40	50	60	70	80

Measuring quality

3. Vegetative v reproductive

Digestibility (%)	40	50	60	70	80

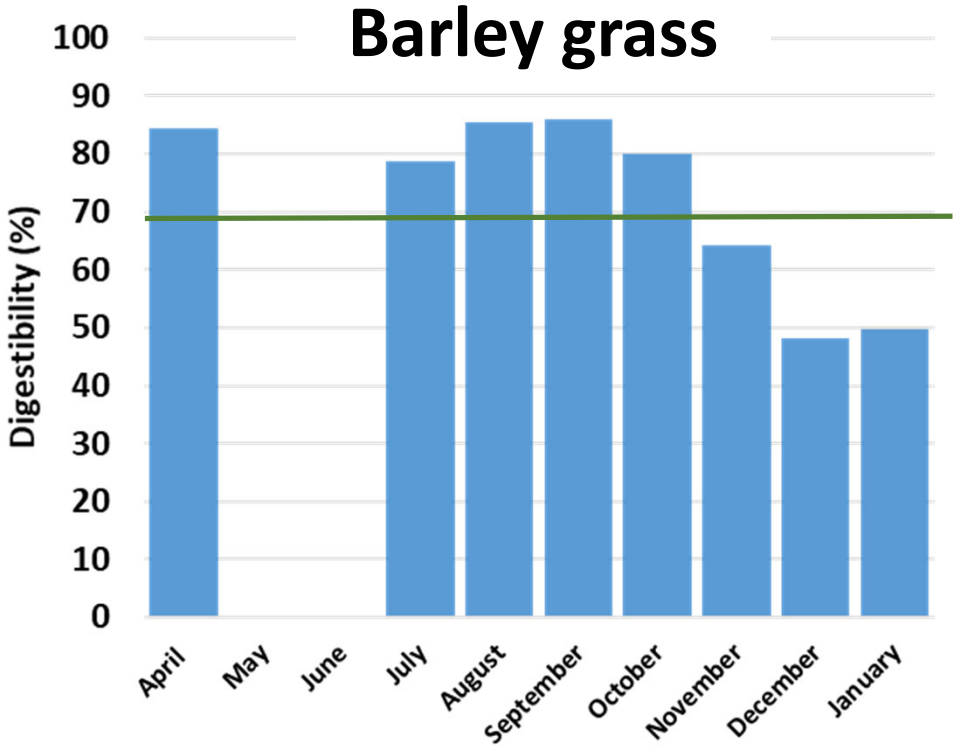
Measuring quality

4. Species

Digestibility (%)	40	50	60	70	80

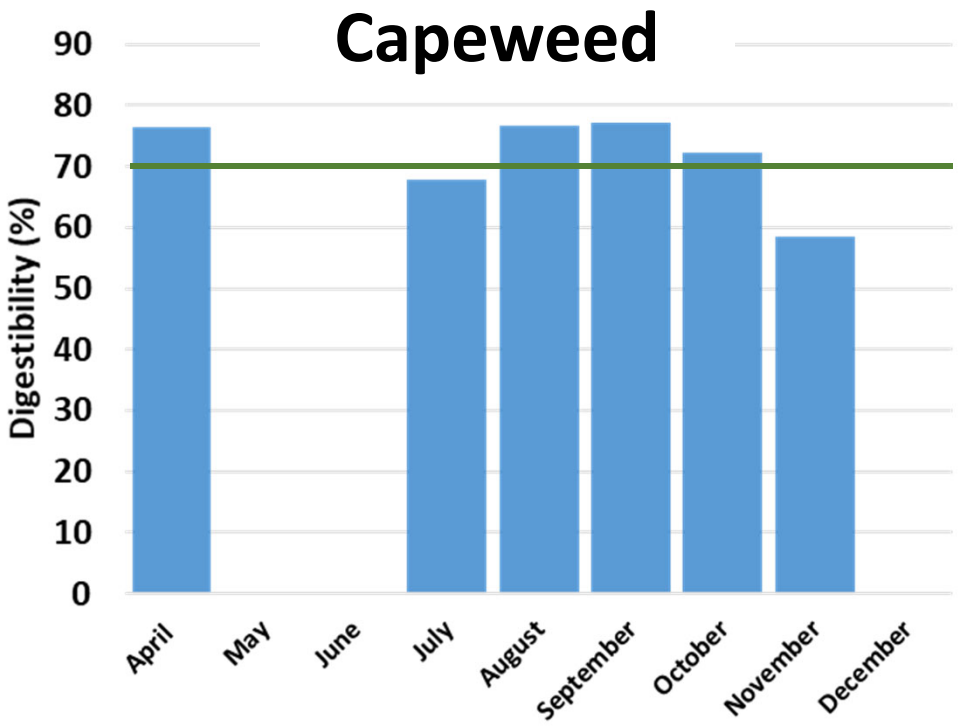
Measuring quality

4. Species



Measuring quality

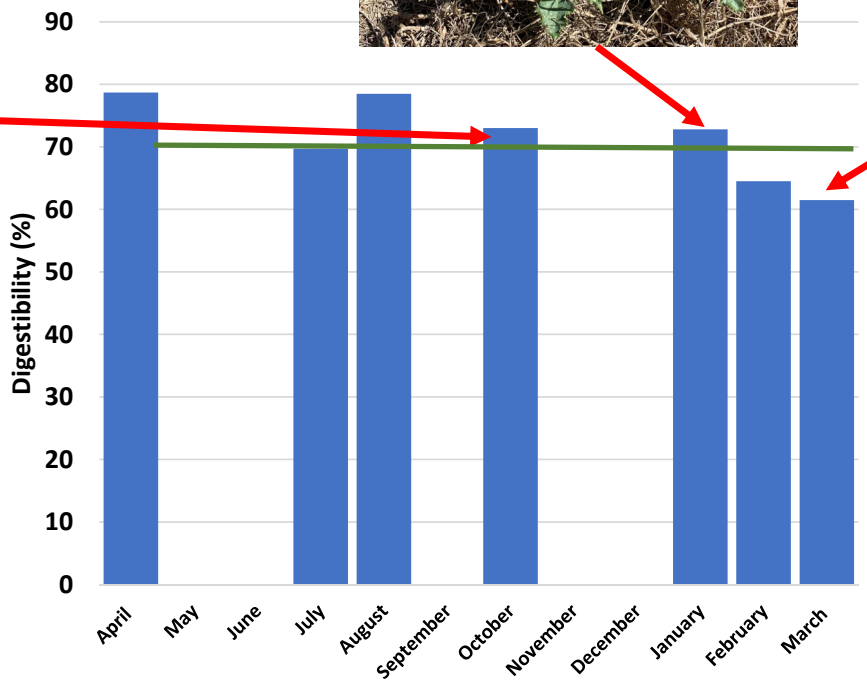
4. Species



Measuring quality

4. Species

Milk thistle



Growing more quantity and better quality feed

3 levers

Lever 1 – Soil condition

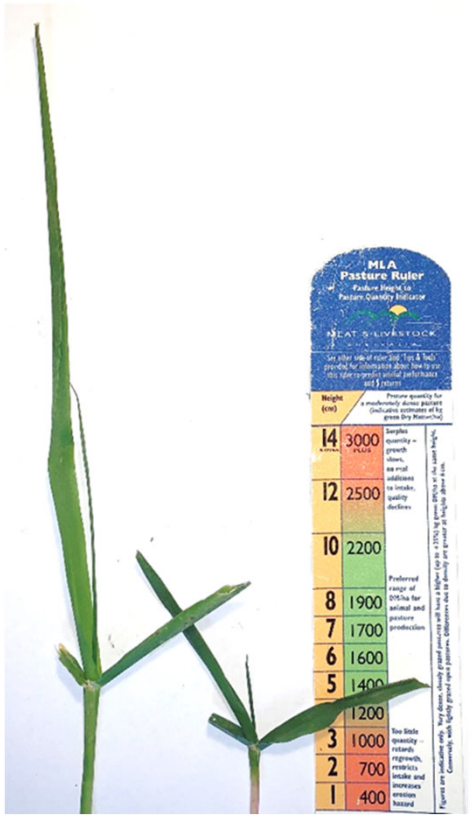
Lever 2 – Grazing

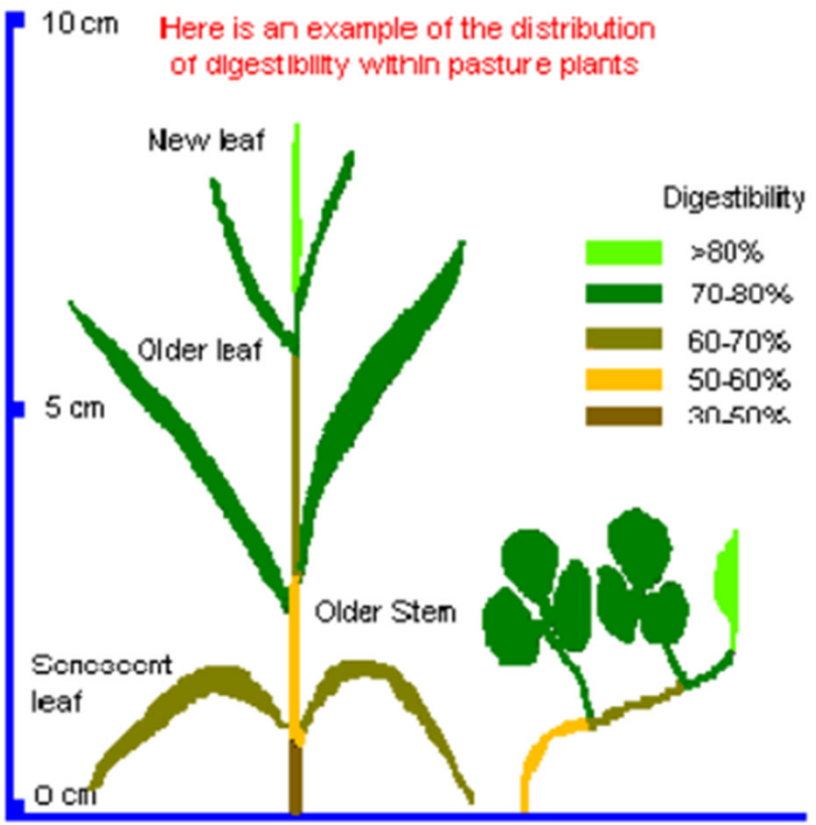
Lever 3 – Weed control

Lever 4? – New species

Lever 1 - Soil condition

Fertiliser grows fat leaves



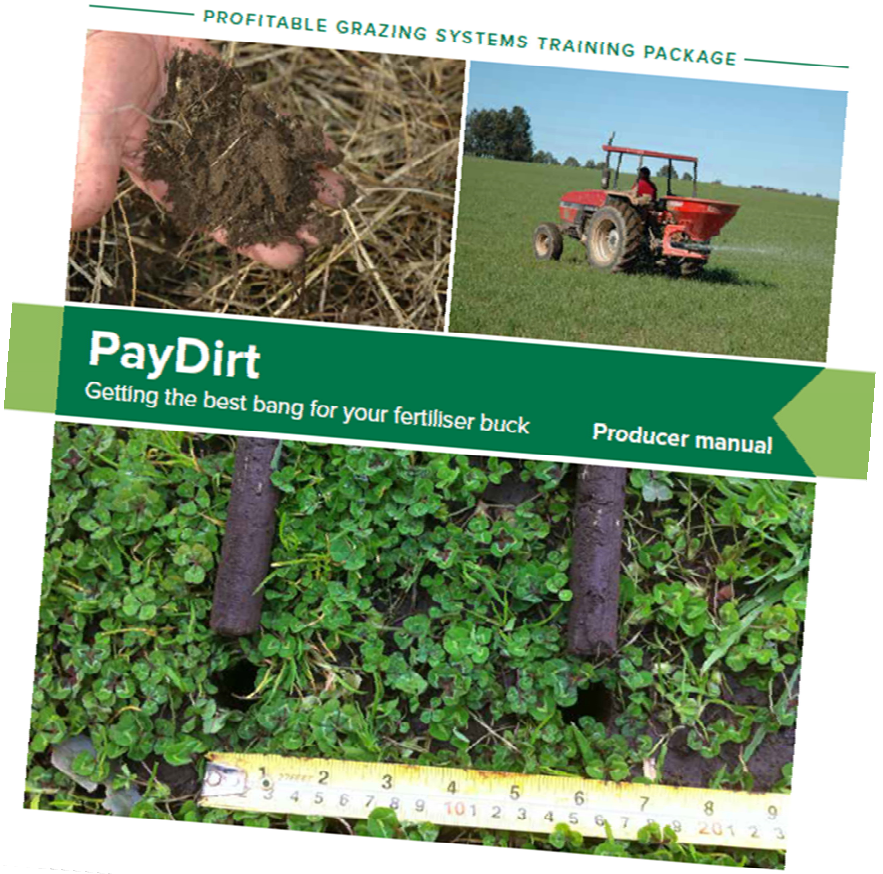


Lever 1 - Soil condition

Visual

Lever 1 - Soil condition

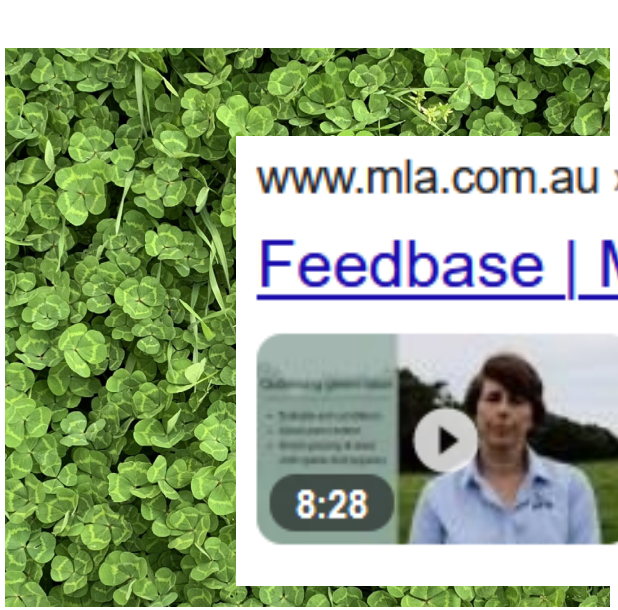
Measurement



Lever 2 - Grazing

Principles covered by Basil

Species - subclover



www.mla.com.au › Grazing-pasture-management › feedb...

Feedbase | Meat & Livestock Australia - MLA

Videos. More **Sub-clover** ...

25 Aug 2020 · Uploaded by meatandlivestock

growth

How do I series:

- Optimise growth
- Establishment
- Seed set
- Soil health

Replace outclassed

iagnosis

Underperformance

Identification

Lever 2 - Grazing

Species – perennial grasses

How do I series:

- Thrive and survive
- Recruit new seedlings
- Manage plant stress
- Manage reproductive tillers

- Manage the grazing challenge

Lever 3 - Weeds

How do I ...

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know if herbicide application would improve my pasture?

The issue:	Weeds can reduce pasture productivity, but controlling weeds with herbicide does not always provide all the answers and requires careful management to realise the benefits.
The impact:	Improvement in desirable grasses and clovers enables a pasture to reach its productive potential and extend its persistence.
The opportunity:	Weed control can be a low-cost, high-benefit tactic to improve the productivity and life of a pasture, but only under the right conditions.

Taking control

Herbicides can be a useful tool to alter the composition of a pasture, either through direct action or when combined with grazing management. Selectively removing or suppressing unwanted plants results in less competition for desirable species, providing an opportunity for those species to increase in size and occupy vacant spaces. Good weed management can deliver significant gains in the quantity and quality of the pasture.

However, the effect can be short-lived if the underlying reasons for the presence of the weed are not understood and addressed, or there is insufficient desirable species to take advantage of the reduced competition (see breakout box next page).

Lever 3 - Weeds

Weighing up the pros and cons

Weed control decisions require appreciating and comparing the benefits and costs, or the pros and cons.

A simple five-step approach to assess this is a good start.

1. **Rate the weed problem**. Using Table 2, consider the number of 'Xs' against the dominant weeds. The more 'Xs', the greater the problem the weed may pose, especially in large quantities.
2. **Rate the presence of desirable species to fill the gaps**. Using *Pasture Paramedic* or a similar pasture composition assessment technique, determine if enough desirable plants exist to fill the gaps vacated by removed weeds.
3. **Identify the best herbicide technique to consider**. Refer to Table 3 to determine the approach and timing. Appreciate the requirements to make the technique work by referring to the MLA fact sheets: *How do I...* series on spray-topping, winter cleaning, spray-grazing and use of selective herbicides.
4. **Assess the costs and benefits**. Refer to the suggested method of calculating costs and benefits. These may vary greatly from one season to the next due to changing indirect costs.
5. **Appreciate what other changes may need to be made to maximise the benefits**. This could involve fertiliser, lime, grazing or over-sowing desirable grasses or legumes.

To simplify the process a decision matrix has been developed to enable a rapid assessment of the key considerations (Table 6). Circle the score more closely reflecting your response, add up the scores and consider them against the suggested decisions.

How do I series:

- Spraygrazing
- Winter cleaning
- Spraytopping
- Selective herbicides
- Silage and hay

Lever 4 - Species

What pasture species are best for my system?

- The one that suits your environment (rainfall, temperature, soil properties – WHC, texture)

- That you are prepared to pull the three levels to the extent they need.

Does my pasture have potential?

Pasture Paramedic

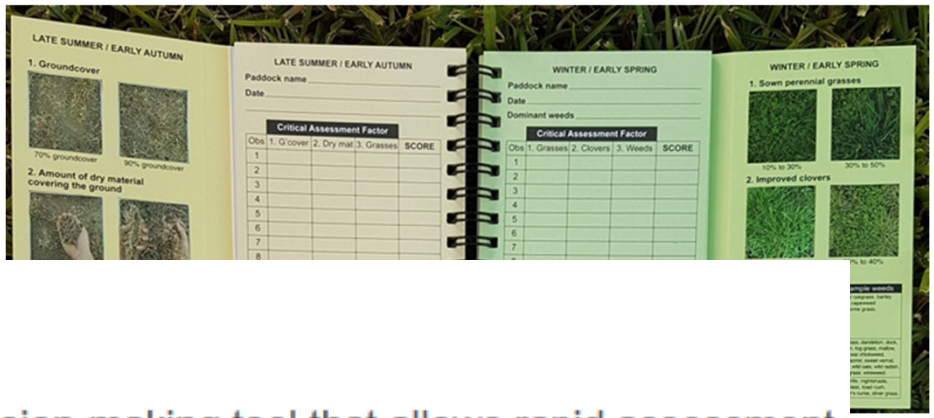
Assessment based on:

- Desirable grasses
- Sub-clover
- Weed (type)

Suggested decision

- All good
- Manipulate
- Resow/oversow

Does my pasture have potential?



www.youtube.com › watch

Pasture Paramedic - YouTube

'Pasture Paramedic' is a decision-making tool that allows rapid assessment of **pasture** condition in the ...

7 Sept 2020 · Uploaded by meatandlivestock

Does my pasture have potential?

Profitable Grazing Systems:

- Builds skills and confidence
- Groups activities
- 1:1 support
- Cost

Pasture Paramedic

- Manipulate PGS
- Resow/oversow PGS

Take home messages

1. Quantity AND quality drive animal performance – we need to pull the right levers to optimize this.

2. We have the knowledge to make this work – use the MLA products (and from others)

3. The application can be a challenge – PGS provides a great pathway to build the skill and confidence.

Tools and resources

1. Pasture Paramedic
2. MLA How do I ……. Series. This has multiple handouts and videos on:
    - Sub clover management
    - Weed manipulation
    - Perennial grass management
    - Soil management
3. PGS courses:
    - Paydirt (soils)
    - Pasture manipulation
    - Pasture resowing