## Pasture Management Checklist

FOR SOUTH EAST

## Queensland Catchments



## Lewis Kahn and Judi Earl

Agricultural Information \& Monitoring Services



Healthy Land - Healthy Water

Low and ideal values for the $\mathbf{1 2}$ key pasture checklist points

|  | Low (less than) | Ideal |
| :---: | :---: | :---: |
| Herbage mass (kg DM/ha) | 1,500 | 2,500-4,000 |
| Herbage mass - \% edible | 80\% | 100\% |
| Percentage green spring, summer \& autumn | 60\% | more than 70\% |
| Ground cover | 95\% | 100\% |
| Broadleaf plant component | 5\% | 10-15\% |
| Legume component spring to early summer | 10\% | 15-25\% |
| Annual grass component autumn, winter \& spring | 5\% | 10-15\% |
| Perennial grass component | 50\% | 60-80\% |
| Diversity of perennial grasses | 3 | more than 7 |
| Pasture growth rate <br> - spring <br> - summer <br> - autumn <br> - winter | $\begin{gathered} 10 \\ 20 \\ 10 \\ 0 \end{gathered}$ | $\begin{aligned} & 30 \\ & 40 \\ & 20 \\ & 10 \end{aligned}$ |
| Water use efficiency | 6 | more than 10 |
| Pasture utilisation rate <br> - spring <br> - summer <br> - autumn | $\begin{aligned} & 15-20 \% \\ & 35-40 \% \\ & 25-30 \% \end{aligned}$ | $\begin{aligned} & 35-40 \% \\ & 55-60 \% \\ & 45-50 \% \end{aligned}$ |

## Pasture growth rate

Step 1: Calculate average stocking rate (DSE/ha) for the period between two estimates of herbage mass (SR)
Note: DSE tables provided at the end of this checklist
Step 2: Calculate the number of days in that period ( $T$ )
Step 3: Estimate herbage mass (kg DM/ha) at start of period (HM1)
Step 4: Estimate herbage mass (kg DM/ha) at end of period (HM2)
Calculation is: $\quad \frac{(\mathrm{SR} \times \mathrm{T})+(\mathrm{HM} 2-\mathrm{HM} 1)}{\mathrm{T}}=\ldots \ldots . . \mathrm{kg} \mathrm{DM} / \mathrm{ha} /$ day
See page 10 for further details

## Water use efficiency

Step 1: Calculate pasture growth over the period (PG)
Step 2: Record rainfall ( mm ) over the period used to calculate pasture growth (R)

Calculation is: $\quad \underline{P G}=\ldots . . . . . \mathrm{kg}$ DM/ha/mm
R
See page 11 for further details

## Pasture utilisation rate

Step 1: Calculate pasture growth rate over the period (PGR)
Step 2: Calculate average stocking rate over the same period (SR)

Calculation is:

$$
\frac{\mathrm{SR}}{\mathrm{PGR}} \times 100=\ldots \ldots . . . .
$$

See page 12 for further details

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## Disclaimer

This publication is intended to provide general information on pasture assessment and management. The authors acknowledge that pasture types may vary and will not be responsible for any loss caused by reliance on this publication.

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## The purpose of this pasture management checklist

The aim of this checklist is to help you to improve the profitability and sustainability of your grazing enterprise by pasture assessment and adaptive pasture management.

Improved pasture assessment will allow you to improve management and optimise pasture performance. At the same time these skills will allow you to determine appropriate stocking rates for your pastures throughout the year.

## The pasture management checklist

There are 12 key points to assessing the condition of your pastures and these are:

1. Herbage mass
2. Herbage mass - percentage edible
3. Percentage green
4. Ground cover
5. Broadleaved plants component of herbage mass
6. Legume component of herbage mass
7. Annual grass component of herbage mass
8. Perennial grass component of herbage mass
9. Diversity of perennial grass species
10. Pasture growth rate
11. Water use efficiency
12. Pasture utilisation rate

Each key point is described in detail and examples of how to conduct each assessment are provided.

Recording sheets are provided in this checklist for you to record the outcome of your pasture assessment and the grazing details for a paddock. We recommend that each recording sheet be used to assess pasture condition on 4 occasions in the same paddock over the year.

An EXCEL ${ }^{\circledR}$ workbook (Pasture checklist calculator) is provided at www.aimsag.com.au/software.html to calculate stocking rate, pasture growth rate, water use efficiency, pasture utilisation rate and feed budgets. Make sure to write the results from these calculations on the recording sheets in this checklist.

Conducting the pasture management checklist

- Assessment should be conducted at the start of each season for a selection of at least 3 paddocks (which represent different pasture types) on each farm
o The recording sheets may be used more frequently if required - for example prior to and after each grazing event
- Within each paddock choose up to 3 locations which represent the variation in the paddock
o Variation may include factors such as; soil type, pasture species, aspect, tree cover, etc
o Small paddocks with little variation may only require 1 location
- At each location conduct the pasture checklist assessment over an area of about $10 \mathrm{~m} \times 10 \mathrm{~m}$
- Record the assessment in the recording sheets provided at the rear of this booklet
o Enter in the recording sheets
- Paddock name
- Grazable area
- Date of pasture assessment
- Results of the 12 key pasture checklist points
- There are 4 boxes within each checklist point in the recording sheet, which allow for up to 3 locations in a paddock plus the paddock average
- Checklist points that are low or ideal
- Grazing details

Thinking this is going to be all too hard?
The first few occasions of using the checklist may take some time but you will get quicker with practice. Eventually you will reach the point where the checklist will be completed in about 10-20 mins per paddock.

It will be worth the effort!
Lewis Kahn \& Judi Earl

## Additional support tools

The following additional support tools are available for free download from www.aimsag.com.au/software.html

- AIMS Record of Grazing Events ${ }^{\odot}$
- AIMS Pasture Checklist Calculator ${ }^{\ominus}$
- AIMS Graze Plan Calculator ${ }^{\circ}$


## (A) Herbage mass

- Quantity of pasture in the paddock
- Measured as kg dry matter/ha (kg DM/ha)
- Controls feed intake of animals and pasture regrowth rate
- Used to calculate feed budgets and set appropriate stocking rates

Low: less than $1,500 \mathrm{~kg}$ DM/ha
o Feed intake and pasture growth rate will be greatly restricted and desirable species may not persist
Ideal: 2,500-4,000 kg DM/ha
o Feed intake, diet selection and pasture growth rate optimised
Too much: more than 4,000 kg DM/ha
o No advantage for feed intake and pasture quality and growth rate decline, shading may reduce the number of plants

To calculate:
Step 1: Measure pasture height (cm) from the ground to the top of the bulk of leaves; do not extend leaves and do not measure to the top of seedheads. See pasture height photo.
Step 2: Estimate pasture density in terms of kg DM/ha for every centimetre of pasture height
Table: Guide to the estimation of pasture density (kg DM/ha/cm)

|  | Pasture height |  |  |
| :--- | :---: | :---: | :---: |
| Pasture description | $0-10 \mathrm{~cm}$ | $10-25 \mathrm{~cm}$ | More than <br> 25 cm |
| Sparse pasture with ground <br> readily visible | 250 | 200 | 150 |
| Pasture with ground only <br> occasionally visible | 300 | 250 | 200 |
| Pasture with ground not <br> visible | 350 | 300 | 250 |

Step 3: Multiply pasture height x pasture density (e.g. $10 \mathrm{~cm} \times 250 \mathrm{~kg}$ DM/ha/cm $=2,500 \mathrm{~kg}$ DM/ha herbage mass)

## Pasture height



## (B) Herbage mass - percentage edible

- Percentage of herbage mass that would be eaten by livestock
- Measured as percent of herbage mass (\%)
- Your estimate may change with season. For example, Poa tussock may be considered not edible during spring, when other green pasture is present but at the end of winter may be considered as a valuable source of roughage
o Low: less than 80\%
o Marginal: 80-99\%
o Ideal: 100\%


## (C) Percentage green

- Percentage of herbage mass that is green, as opposed to dead
- Measured as percent of herbage mass (\%)
- When estimating percentage green, ensure to look for and include in your estimate, any attached dead plant material at the bottom of the pasture. This does not include detached litter
- During spring, summer and autumn;
o Low: less than 60\%
o Marginal: 60-70\%
o Ideal: greater than $70 \%$


## (D) Ground cover

- Area of the soil surface covered by plant material, litter or dung (ie. not bareground)
- Measured as percent of area (\%)
- Reduces rainfall run-off and increases water infiltration
- Allows you to maximise the conversion of rainfall to herbage mass
o Low: less than $95 \%$
o Marginal: 95-99\%
o Ideal: 100\%
- See ground cover photos on page 7 for examples of $25,50,75$ and 100\% ground cover
(E) Broadleaved plant component of herbage mass
- Broadleaved non-grass species in the pasture (i.e. plantain or flatweed)
- Measured as percent of herbage mass (\%)
- Enhance the quality of the herbage (ie. digestibility, crude protein and mineral content). Have a tap root system which aids soil structure and nutrient cycling. Improves the diversity of pastures which buffers against seasonal changes
o Low: less than 5\%
o Marginal: 5-10\%
o Ideal: 10-15\%
o Too much: greater than 15\%

(F) Legume component of herbage mass
- Clovers, medics, lucerne, siratro, lotus and native twinning legumes
- Measured as percent of herbage mass (\%)
- Enhance the quality of the herbage (ie. digestibility, crude protein and mineral content). In association with certain bacteria, have the capacity to transform nitrogen from the atmosphere into plant material which will eventually improve soil nitrogen.
- During spring to early summer, and year-round for perennial legumes such as lucerne;
o Low: less than $10 \%$
o Marginal: 10-15\%
o Ideal: 15-25\%
o Too much: greater than $25 \%$
- If allowed to exceed this value there is a risk of creating bare ground at the next dry spell when legumes disappear.



## (G) Annual grass component of herbage mass

- Percentage of herbage mass provided by annual grass species
o Annual grass species are easily pulled out of the ground
- Measured as percent of herbage mass (\%)
- Provides seasonal feed, most evident during late winter and spring
- During autumn, winter and spring
o Low: less than 5\%
o Marginal: 5-10\%
o Ideal: 10-15\%
o Too much: greater than $15 \%$


## (H) Perennial grass component of herbage mass

- Percentage of herbage mass provided by perennial grass species
o Perennial grass species are difficult to pull out of the ground; annual grass species pull-out easily
- Measured as percent of herbage mass (\%)
- Provides year-round stability to pasture and animal production
o Low: less than 50\%
o Marginal: $50-60 \%$ and greater than $80 \%$
o Ideal: 60-80\%
o The ideal percentage does not exceed $80 \%$ because the presence of a range of annual grasses, broadleaved plants and legumes will be desirable


## (I) Diversity of desirable perennial grass species

- The number of desirable perennial grass species in the pasture
- Provides year-round stability to pasture and animal production and ensures healthy pasture ecosystems
o Stability is provided by the presence of perennial species with different growth cycles which maximise the conversion of sunlight into herbage
o Low: less than 3
o Marginal: 4-6
o Ideal: greater than 7

Estimate once per year at the start of summer or more often if desired

## (J) Pasture growth rate

- Production of herbage mass over time
- Measured as kg dry matter/ha/day (kg DM/ha/day)
- Used in the feed budgeting process to set appropriate stocking rates

Table: Range of seasonal pasture growth rates (kg DM/ha/day)

| Season | Low | Marginal | Ideal |
| :--- | :---: | :---: | :---: |
| Spring | 10 | 20 | 30 |
| Summer | 20 | 30 | 40 |
| Autumn | 10 | 15 | 20 |
| Winter | 0 | 5 | 10 |

To calculate:
Step 1: Calculate average stocking rate for the period between two estimates of herbage mass (SR: 8 DSE/ha)
Note: DSE tables provided at the end of this checklist
Step 2: Calculate the number of days in that period (T: 90 days)
Step 3: Estimate herbage mass at start of period (HM1: 1,000 kg DM/ha)
Step 4: Estimate herbage mass at end of period (HM2: 3,000 kg DM/ha) Calculation is:

$$
\begin{aligned}
& \frac{(\mathrm{SR} \times \mathrm{T})+(\mathrm{HM} 2-\mathrm{HM} 1)}{\mathrm{T}}=\ldots \ldots \mathrm{kg} \mathrm{DM} / \mathrm{ha} / \mathrm{day} \\
& \frac{(8 \times 90)+(3,000-1,000)}{90}=30 \mathrm{~kg} \text { DM/ha/day }
\end{aligned}
$$

## NOTE

Average stocking rate refers to the average stocking rate for the whole period of days in the calculation. For example, if the stocking rate in the paddock was $8 \mathrm{DSE} /$ ha for 90 days then the average stocking rate would be $8 \mathrm{DSE} / \mathrm{ha}$. If there was $8 \mathrm{DSE} /$ ha for 45 days and no stock for 45 days, the average stocking rate would be 4 DSE/ha. And so forth....

## (K) Water use efficiency

- Herbage mass grown per millimetre (mm) of rainfall
- Measured as kg dry matter/ha/mm rainfall (kg DM/ha/mm)
o Ideally calculated over a period of at least 3 months
- Indicates how effectively pastures convert rainfall to herbage mass
o Low: less than $6 \mathrm{~kg} \mathrm{DM} / \mathrm{ha} / \mathrm{mm}$
o Marginal: 6-10 kg DM/ha/mm
o Ideal: greater than $10 \mathrm{~kg} \mathrm{DM} / \mathrm{ha} / \mathrm{mm}$
To calculate:
Step 1: Calculate pasture growth over the period (PG: 30 kg DM/ha/day x 90 days $=2,700 \mathrm{~kg}$ DM/ha/90 days) see page 10 for details
Step 2: Record rainfall over the period used to calculate pasture growth ( $\mathrm{R}: 300 \mathrm{~mm}$ ) see NOTE below
Calculation is:

$$
\begin{aligned}
& \frac{\mathrm{PG}}{\mathrm{R}}=\ldots . . \mathrm{kg} \mathrm{DM} / \mathrm{ha} / \mathrm{mm} \\
& \frac{2,700}{300}=9 \mathrm{~kg} \mathrm{DM} / \mathrm{ha} / \mathrm{mm}
\end{aligned}
$$

## NOTE

When deciding the amount of rainfall that has fallen in the measurement period a few practical issues should be considered. These are:

1. All rainfall events in the week prior to the start of the period SHOULD be included because this rain will aid pasture growth during the measurement period.
2. All rainfall events in the last week of the measurement period should NOT be included because it is unlikely that these events will significantly affect pasture growth rate.
3. For example if the period was from $1^{\text {st }}$ January $-1^{\text {st }}$ April, include rainfall from $24^{\text {th }}$ December $-24^{\text {th }}$ March.

Periods of heavy rainfall will result in low Water Use Efficiency values which may not be indicative of poor pasture performance.

## (L) Pasture utilisation rate

- The percentage of pasture growth eaten by the animal
- Measured as percent (\%) of herbage mass grown during a defined period
- Pasture utilisation is best calculated over a period of 12 months and not less than 3 months. Utilisation may be greater than 100\% over winter indicating that animals are consuming more than current pasture growth
- Ideal annual pasture utilisation is $50 \%$, and not more that $60 \%$
- Low pasture utilisation will result in lower than optimal stocking rates, lower quality pastures and lead to accumulation of excessive litter
- Too much pasture utilisation will reduce pasture growth rate in the next season/s and the amount of herbage available for litter

Table: Range of seasonal pasture utilisation rates (\%)

| Season | Low | Marginal | Ideal |
| :--- | :---: | :---: | :---: |
| Spring | $15-20$ | $25-30$ | $35-40$ |
| Summer | $35-40$ | $45-50$ | $55-60$ |
| Autumn | $25-30$ | $35-40$ | $45-50$ |

Note these values are highly dependent on pasture growth rates

To calculate:
Step 1: Calculate pasture growth rate over the period (PGR: 30 kg DM/ha/day)

Step 2: Calculate average stocking rate over the period (SR: 8 DSE/ha)
Calculation is:

$$
\begin{gathered}
\frac{\mathrm{SR}}{\mathrm{PGR}} \times 100=\ldots \ldots \% \\
\frac{8}{30} \times 100=27 \% \text { pasture utilisation }
\end{gathered}
$$

## Further information

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## Feed budgeting

- Is a process used to determine how many stock can be run on an area for a given period of time
o Feed budgeting does not determine feed quality requirements of livestock which should be assessed separately
- Is a process to guard against over and under grazing
- Requires knowledge or estimates of:
o Grazable area, which may be a paddock or a farm
o Type of stock to be run during a nominated period
o DSE rating of the type of stock based on their nutritional requirements and estimated growth rate (provided at the end of this checklist)
o Conversion to DSE ratings are important given 1 DSE consumes 1 kg DM of herbage mass each day. i.e. 1 DSE = 1 kg DM/day
o Herbage mass at the start of the period
o Desired herbage mass at the end of the period
- Consult herbage mass targets provided earlier in this checklist
- Minimum herbage mass should only be reached at the very end of the non-growing period, if at all. If minimum herbage mass is reached this should not be less than $1,500 \mathrm{~kg}$ DM/ha for cattle.
- Grazing to below these minimum levels will limit the rate of pasture regrowth and likely result in inadequate ground cover
- As a minimum feed budgets should be conducted in Autumn and cover the intervening period till Spring. For example, areas within SEQ Catchments should ideally cover the period $1^{\text {st }}$ April $1^{\text {st }}$ October. This feed budget will aid stocking decisions over a difficult time of year
- Feed budgeting is an important tool which can be used in conjunction with a grazing plan


## Feed budgeting

Information required:
Farm area (ha)
Length of period (days)
Type of stock during period
DSE rating for stock type
Herbage mass at start of period
Desired herbage mass at end of period
Estimated pasture growth rate (PGR)

| A | Farm area (ha) |  |
| :---: | :--- | :--- |
|  | Start of period (date) |  |
| T | End of period (date) | Length of period (days) |
| S | Type of stock |  |
| D | DSE rating (DSE/stock unit) |  |
| HM1 | Start herbage mass (kg DM/ha) |  |
| HM2 | Desired end herbage mass (kg DM/ha) |  |
| PGR | Pasture growth rate (kg DM/ha/d) |  |
| $\mathbf{1}$ | Available feed (kg DM/ha/d) |  |
| $\mathbf{2}$ | Number of stock units/ha |  |
| $\mathbf{3}$ | Number of stock units |  |

1. Available feed $=\frac{(H M 1-H M 2)}{T}+P G R$
2. Number of stock units/ha = available feed DSE rating 'D'
3. Number of stock units= (number of stock units/ha $\times$ paddock area ' $A$ ')

Grazing details for monitor paddock

| Livestock |  |  |  |  | Grazing |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Class | No. | Weight | DSE <br> rating | Stock in | Stock out | Days | Supplement <br> Tyg/me | Amount |
| eg. Santa $X$ heifers | 50 | 350 kg | 8.5 | $1 / 5 / 10$ | $10 / 5 / 10$ | 9 | cottonseed | 175 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
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$\qquad$

Stocking rate $=\frac{\text { No livestock } \times \text { DSE rating }}{\text { Grazable area }} \times \frac{\text { Days grazed }}{\text { Days in period }}$

Paddock name:

|  | Date |  | Date |  | Date |  | Date |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Herbage mass |  |  |  |  |  |  |  |  |
| (kg DM/ha) |  |  |  |  |  |  |  |  |
| Herbage mass - \% edible |  |  |  |  |  |  |  |  |
| (\%) B |  |  |  |  |  |  |  |  |
| Percentage green |  |  |  |  |  |  |  |  |
| (\%) C |  |  |  |  |  |  |  |  |
| Ground cover |  |  |  |  |  |  |  |  |
| (\%) D |  |  |  |  |  |  |  |  |
| Broadleaf plant component |  |  |  |  |  |  |  |  |
| (\% of herbage mass) E |  |  |  |  |  |  |  |  |
| Legume component |  |  |  |  |  |  |  |  |
| (\% of herbage mass) F |  |  |  |  |  |  |  |  |
| Annual grass component |  |  |  |  |  |  |  |  |
| (\% of herbage mass) G |  |  |  |  |  |  |  |  |
| Perennial grass component |  |  |  |  |  |  |  |  |
| (\% of herbage mass) H |  |  |  |  |  |  |  |  |
| Diversity of perennial |  |  |  |  |  |  |  |  |
| grasses (number) |  |  |  |  |  |  |  |  |
| Pasture growth rate (kg DM/ha/day) |  |  |  |  |  |  |  |  |
| Water use efficiency ( kg DM/ha/mm) |  |  |  |  |  |  |  |  |
| Pasture utilisation rate (\%) |  |  |  |  |  |  |  |  |
| What factors are low |  |  |  |  |  |  |  |  |
| What factors are ideal |  |  |  |  |  |  |  |  |
| Rainfall in period (mm) (see page 11) |  |  |  |  |  |  |  |  |
| Stocking rate in period (DSE/ha) |  |  |  |  |  |  |  |  |

DSE rating for dry cattle

| Weight of steer <br> or dry heifer <br> (kg) | Growth rate <br> (kg/day) | DSE rating | Equivalent <br> AE rating |
| :---: | :---: | :---: | :---: |
| 200 | 0 | 3.5 | 0.5 |
| 250 | 0 | 4.5 | 0.6 |
| 300 | 0 | 5.0 | 0.7 |
| 350 | 0 | 6.0 | 0.8 |
| 400 | 0 | 7.0 | 0.9 |
|  |  |  |  |
| 200 | 0.5 | 6.0 | 0.8 |
| 250 | 0.5 | 7.0 | 0.9 |
| 300 | 0.5 | 7.5 | 0.95 |
| 350 | 0.5 | 8.5 | 1.05 |
| 400 | 0.5 | 9.5 | 1.15 |
| 200 | 1.0 |  |  |
| 250 | 1.0 | 8.5 | 1.05 |
| 300 | 1.0 | 9.5 | 1.15 |
| 350 | 1.0 | 10.0 | 1.2 |
| 400 | 1.0 | 11.0 | 1.3 |
|  |  | 12.0 | 1.45 |

DSE rating for cows

| Weight of cow <br> $\mathbf{( k g})$ | Pregnancyl <br> lactation | DSE rating | Equivalent <br> AE rating |
| :---: | :---: | :---: | :---: |
| 400 | dry | 7.0 | 0.9 |
| 400 | pregnant early | 8.0 | 1 |
| 400 | pregnant late | 9.5 | 1.15 |
| 400 | lactating early | 14.0 | 1.7 |
| 400 | lactating late | 17.0 | 2 |
| 500 | dry | 9.0 |  |
| 500 | pregnant early | 10.0 | 1.1 |
| 500 | pregnant late | 11.5 | 1.2 |
| 500 | lactating early | 16.0 | 1.4 |
| 500 | lactating late | 19.0 | 1.9 |

Appendix I - SEQ pasture type descriptions

The following pages describe examples of typical pastures within South East Queensland Catchments and their characteristics.

Pasture types are:

- Queensland bluegrass on basalt
- Speargrass/Forest bluegrass on clays and loams
- Kangaroo grass/Black speargrass
- Pitted bluegrass/Couch pasture on clays and loams


## Upper Brisbane Catchment Jan 2009



Queensland bluegrass (Dicanthium sericeum) pasture on basalt

| Component | Comment |
| :--- | :--- |
| PASTURE <br> COMPOSITION | Dominated by Queensland bluegrass (3P) with <br> other main species Barbwire grass, Native chloris. <br> Other species present - Native panic, Pitted <br> bluegrass, Tussock grass \& Wiregrass |
| NUMBER OF <br> DESIRABLES (3P) | One - Queensland Bluegrass |
| DRY MATTER <br> YIELD Kg/Ha | $6000 \mathrm{~kg} / \mathrm{ha} \mathrm{DM}$ |
| \% GREEN | $50 \%$ |
| \% OF YIELD <br> DESIRABLE (3P) | $70 \%$ |
| \% OF YIELD <br> LEGUMES | $5 \%$ |
| \% ANNUAL GRASS | $10 \%$ |
| \% GROUNDCOVER | $>\mathbf{8 0 \%}$ |

## Upper Brisbane River - May 2009

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Speargrass / Forest bluegrass pasture on clays and loams

| Component | Comment |
| :--- | :--- |
| PASTURE <br> COMPOSITION | Dominated by Black speargrass and Forest <br> bluegrass (3P) with other main species scented <br> top. Other species present - Native panic, Pitted <br> bluegrass, Native lovegrass \& Wiregrass |
| NUMBER OF <br> DESIRABLES (3P) | 3 - Black speargrass, Forest bluegrass , Scented <br> top |
| DRY MATTER <br> YIELD Kg/Ha | $5200 \mathrm{~kg} / \mathrm{ha} \mathrm{DM}$ |
| \% GREEN | $50 \%$ |
| \% OF YIELD <br> DESIRABLE (3P) | $80 \%$ |
| \% OF YIELD <br> LEGUMES | $5 \%$ |
| \% ANNUAL GRASS | $5 \%$ |
| \% GROUNDCOVER | $\mathbf{> 9 0 \%}$ |



Kangaroo grass/ Black Spear grass Native pasture

| Component | Comment |
| :--- | :--- |
| PASTURE <br> COMPOSITION | Kangaroo grass (3P), Black spear grass (3P), <br> Tambookie grass (3P), QLD blue grass (3P), <br> Scented Top (3P), Angleton grass, Blady grass, <br> Green Panic (3P) and Wiregrass |
| NUMBER OF <br> DESIRABLES (3P) | Six 3P grasses, one of 2P and one 1P |
| DRY MATTER <br> YIELD Kg/Ha | $3136 \mathrm{Kg} / \mathrm{DM} / \mathrm{Ha}$ |
| \% GREEN | $45-50 \%$ |
| \% OF YIELD <br> DESIRABLE (3P) <br> \% OF YIELD | $>80 \%$ |
| LEGUMES | $<2 \%$ |
| \% ANNUAL GRASS | 0 |
| \% GROUNDCOVER | $>90 \%$ |



Pitted bluegrass and Couch pasture on clays and loams

| Component | Comment |
| :---: | :---: |
| PASTURE COMPOSITION | Dominated by Couch \& Pitted bluegrass ( 2 P ) with other main species Windmill grass, Slender chloris, Wiregrass, Native rats tail grass. Blue heliotrope, fleabane and verbena common. |
| NUMBER OF DESIRABLES (3P) | One - Black speargrass |
| DRY MATTER <br> YIELD Kg/Ha | $2500 \mathrm{~kg} / \mathrm{ha} \mathrm{DM}$ |
| \% GREEN | 50\% |
| \% OF YIELD DESIRABLE (3P) | < 10 \% |
| \% OF YIELD <br> LEGUMES | 5\% |
| \% ANNUAL GRASS | 20\% |
| \% GROUNDCOVER | 80 \% |

