Managing livestock nutrition in dry times

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The Livestock Vet Pty Ltd

Breeder management

- Nutrition
- Body Condition Score

Breeder management

- Condition score targets for joining
- Condition score target for lambing or calving
- Condition score trigger point for weaning

Optimise best chance of hitting condition score targets at joining by heeding the condition score trigger point for weaning

Condition Scoring- sheep

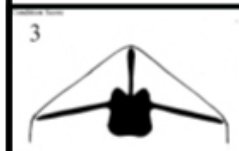
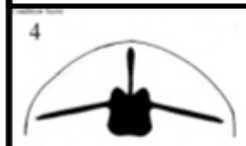
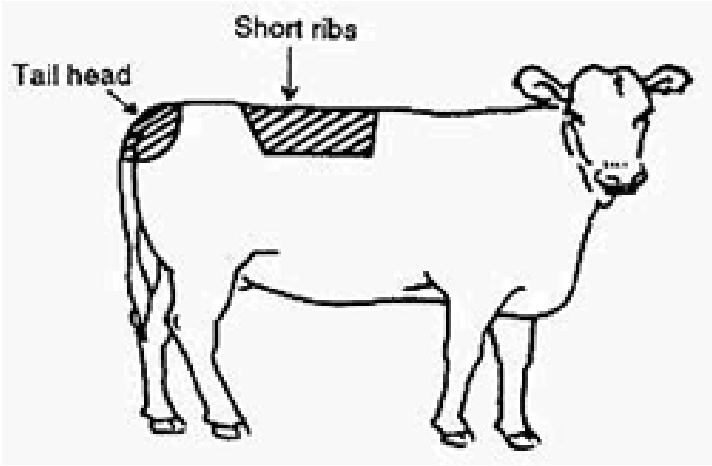
1 	**Backbone** The bones form a sharp narrow ridge. Each vertebra can be easily felt as a bone under the skin . There is only a very small eye muscle. The sheep is quite thin (virtually unsaleable)	**Short Ribs** The ends of the short ribs are very obvious. It is easy to feel the squarish shape of the ends. Using fingers spread 1cm apart, it feels like the fingernail under the skin with practically no covering
2 	**Backbone** The bones form a narrow ridge but the points are rounded with muscle. It is easy to press between each bone. There is a reasonable eye muscle. Store condition- ideal for wethers and lean meat.	**Short Ribs** The ends of the short ribs are rounded but it is easy to press between them. Using fingers spread 0.5cms apart, the ends feel rounded like finger ends. They are covered with flesh but it is easy to press under and between them.
3 	**Backbone** The vertebrae are only slightly elevated above a full eye muscle. It is possible to feel each rounded bone but not to press between them. (Forward store condition ideal for most lamb markets now. No excess fat).	**Short Ribs** The ends of short ribs are well rounded and filled in with muscle. Using 4 fingers pressed tightly together, it is possible to feel the rounded ends but not between them. They are well covered and filled in with muscle.
4 	**Backbone** It is possible to feel most vertebrae with pressure. The back bone is a smooth slightly raised ridge above full eye muscles and the skin floats over it.	**Short Ribs** It is only possible to feel or sense one or two short ribs and only possible to press under them with difficulty. It feels like the side of the palm, where maybe one end can just be sensed.
5 	**Backbone** The spine may only be felt (if at all) by pressing down firmly between the fat covered eye muscles. A bustle of fat may appear over the tail (wasteful and uneconomic).	**Short Ribs** It is virtually impossible to feel under the ends as the triangle formed by the long ribs and hip bone is filled with meat and fat. The short rib ends cannot be felt.

Image credit: Lifetime Wool

Condition Scoring- Cattle



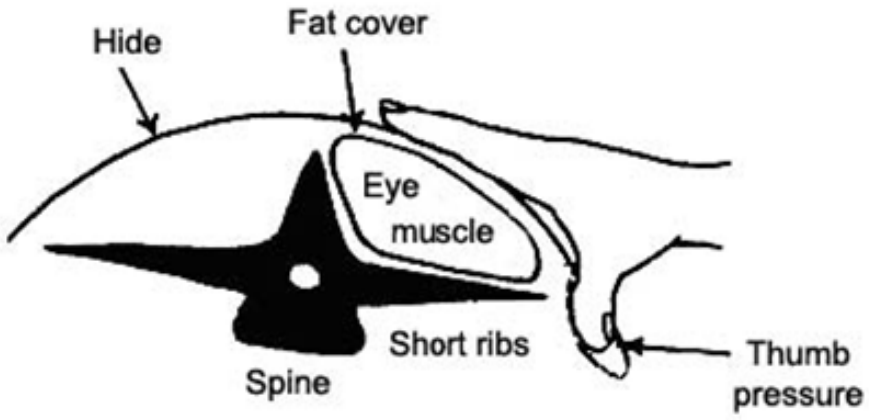
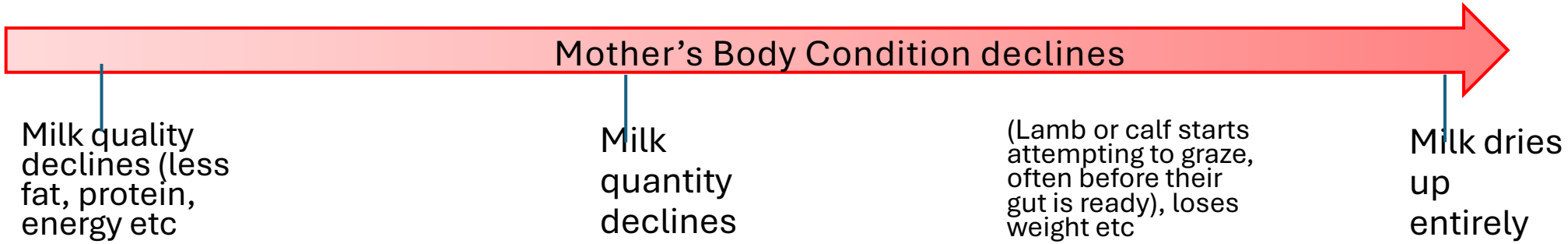


Image credit: Agriculture Victoria

Weaning



In these situations, staying as a unit is little benefit to the offspring and mother

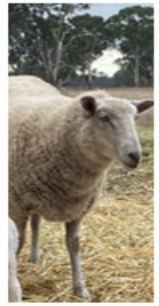
Weaning- efficiency with resources

Cattle

- Pre-ruminant calf is 90% efficient with the energy supplied in their mother's milk
- Ruminant calves (2 months old or more, as the rumen develops) is closer to 65% efficient with the energy from their mother's milk.

= 3 DSE

or let's wean them



1 DSE

+

0.8 DSE

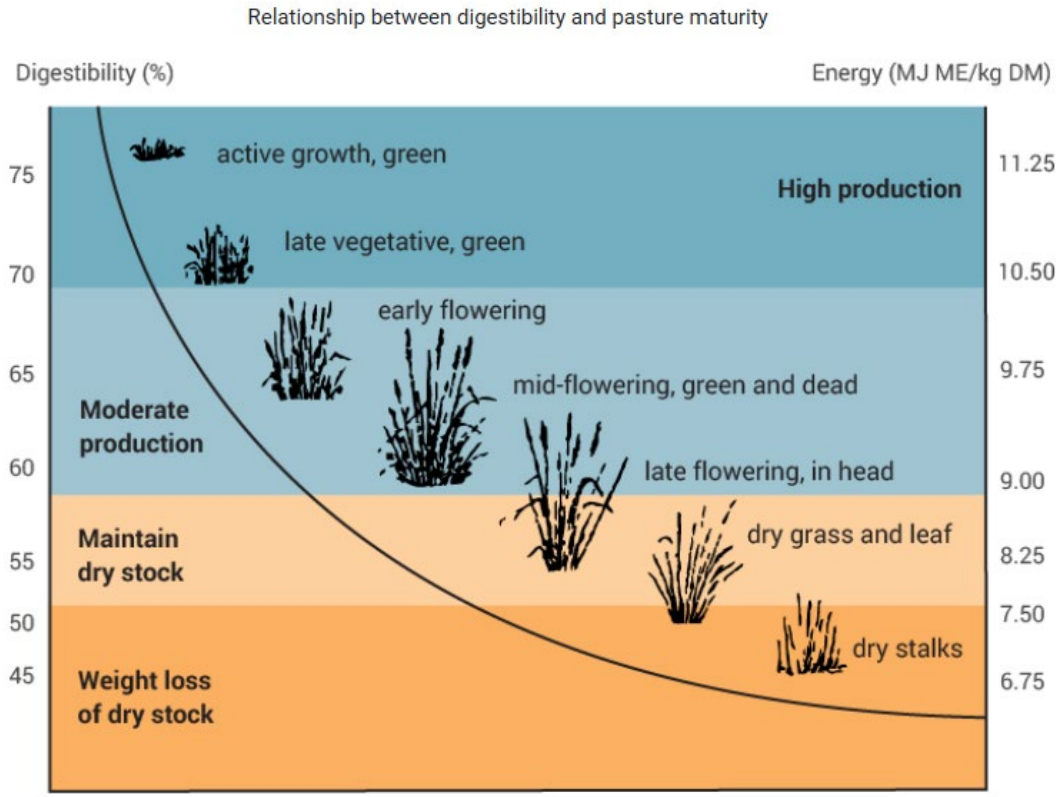
= 1.8 DSE

Early weaning- imprint feeding is still critical!

Early weaning- imprint feeding is still critical!

STARCH

Where are they going?



Source: NSW Agriculture, Meat and Livestock Australia (1994). PROGRAZE, profitable, sustainable grazing

Energy required

Minimum 10ME/kg DM as the total ration

- Active growing pasture and early flowering will likely meet this *provided they aren't limited by feed on offer/availability.*
- Mid-flowering and later won't be enough-need to add supplementation.

- *Some very young early weaners will need more energy dense feed than this as they are so limited by intake.*

Approximate kgDM stock can eat based on fibre level of feed

Liveweight of stock (kg)	Fibre in feed (NDF%)								
	35	40	45	50	55	60	65	70	75
15 kg	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2
25 kg	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.4	0.4
35 kg	1.2	1.1	0.9	0.8	0.8	0.7	0.6	0.6	0.6
45 kg	1.5	1.4	1.2	1.1	1.0	0.9	0.8	0.8	0.7
55 kg	1.9	1.7	1.5	1.3	1.2	1.1	1.0	0.9	0.9
65 kg	2.2	2.0	1.7	1.6	1.4	1.3	1.2	1.1	1.0
70 kg	2.4	2.1	1.9	1.7	1.5	1.4	1.3	1.2	1.1
100 kg	3.4	3.0	2.7	2.4	2.2	2.0	1.8	1.7	1.6
150 kg	5.1	4.5	4.0	3.6	3.3	3.0	2.8	2.6	2.4
200 kg	6.9	6.0	5.3	4.8	4.4	4.0	3.7	3.4	3.2
250 kg	8.6	7.5	6.7	6.0	5.5	5.0	4.6	4.3	4.0
300 kg	10.3	9.0	8.0	7.2	6.5	6.0	5.5	5.1	4.8
350 kg	12.0	10.5	9.3	8.4	7.6	7.0	6.5	6.0	5.6
400 kg	13.7	12.0	10.7	9.6	8.7	8.0	7.4	6.9	6.4
450 kg	15.4	13.5	12.0	10.8	9.8	9.0	8.3	7.7	7.2
500 kg	17.1	15.0	13.3	12.0	10.9	10.0	9.2	8.6	8.0
550 kg	18.9	16.5	14.7	13.2	12.0	11.0	10.2	9.4	8.8
600 kg	20.6	18.0	16.0	14.4	13.1	12.0	11.1	10.3	9.6
700 kg	24.0	21.0	18.7	16.8	15.3	14.0	12.9	12.0	11.2
800 kg	27.4	24.0	21.3	19.2	17.5	16.0	14.8	13.7	12.8
900 kg	30.9	27.0	24.0	21.6	19.6	18.0	16.6	15.4	14.4
1000 kg	34.3	30.0	26.7	24.0	21.8	20.0	18.5	17.1	16.0

Protein required

Minimum 15% crude protein required

For very small/young animals: 17-18% may be required.

Feed tests

Agrifood TECHNOLOGY

FEEDTEST

Under license from AVS

Feed Analysis Report

Final Report

Job No:	**J2401-2815**
Date Issued:	06-Feb-2024
Report Number:	278244

Attention:	Braiden Wedding	*Purchase Order:*	*None*
Client:	Karowara Pty Ltd	*Date Sampled:*	30-Jan-2024
Address:	6097 Casterton-Apsley Rd Poolaijelo VIC 3312	*Date Received:*	31-Jan-2024

The following sample was analysed:

Sample ID		
S24-0011718	Your Reference	Ryegrass Hay
	Sample Type	Hay

Analysis of this sample conducted on 31-Jan-2024

Analysis Results

Determinant		Result Value
NIR Package (FT003)		
S24-0011718	Dry Matter	84.8 %
S24-0011718	Moisture	15.2 %
S24-0011718	Crude Protein	7.7 % of dry matter
S24-0011718	Acid Detergent Fibre	26.6 % of dry matter
S24-0011718	Neutral Detergent Fibre	49.9 % of dry matter
S24-0011718	Digestibility (DMD)	71.2 % of dry matter
S24-0011718	Digestibility (DOMD) (Calculated)	67.1 % of dry matter
S24-0011718	Est. Metabolisable Energy (Calculated)	10.6 MJ/kg DM
S24-0011718	Fat	4.1 % of dry matter
S24-0011718	Ash	6.6 % of dry matter

The sample(s) referred to in this report were analysed for the following determinant(s):

Analysis	*Method*	*Laboratory*
NIR Package	FT/003	FeedTest Laboratory - Werribee, VIC

Note: **This report is not to be reproduced except in full.**

Comments: Metabolisable Energy has been calculated using the following equation:
ME = (0.203 x DOMD%) - 3.001

AFIA Grade for legume and pasture hay + silage : A4

ME x DM=

energy per kg fed

10.6 x

0.848= 9

ME per kg fed

Ration calculator

[Develop Ration: Drought and Supplementary Feed Calculator (nsw.gov.au)]