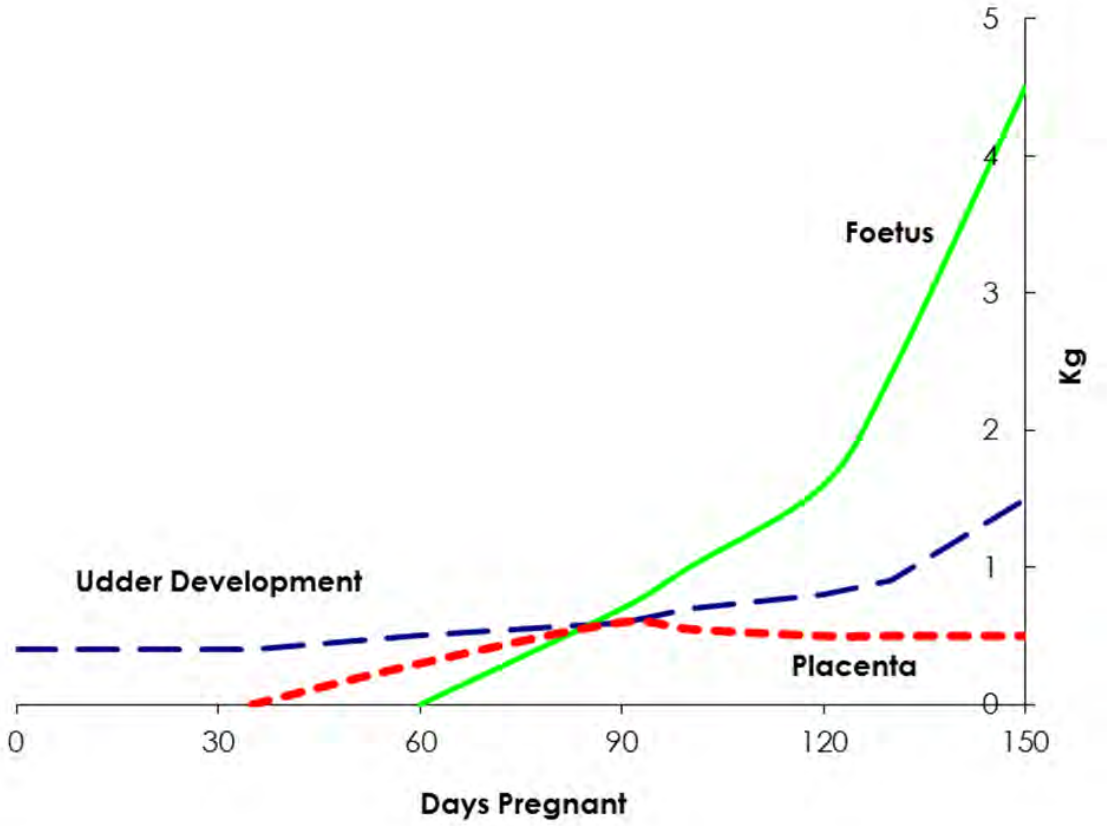
Twin/triplet feeding

Paul Kenyon

Sorry there are none of these!

Management of the multiple bearing ewe

- The optimal management of ewes in pregnancy depends on
  - stage of pregnancy
  - number of fetuses carried
  - the level of feed available and predicted pasture growth
  - body condition of the ewe



Weights of conceptus at term: S 10-13 kg, TW 14 – 18 kg, Tp 20-22 kg

What are the implications of the significant increase in feed demand in late pregnancy?

- A 60 kg ewe at breeding – approx. kg DM/d requirement

	4 wks pre lambing	2 wks pre lambing	Wk of lambing
Single bearing	1.2	1.3	1.5
Twin bearing	1.5	1.6	1.9
Triplet bearing	1.6	1.7	2.1

Based on a ME of 12 MJ ME


1.75 kgDM

What are the implications of the significant increase in feed demand in late pregnancy?

- A multiple bearing ewe can often fail to consume their nutritional requirements in late pregnancy, even when feeding levels are plentiful
  - this is especially the issue with poor quality feeds and bulky feeds
- Studies have shown even if the extra feed is available triplet bearing ewes struggle to consume more than twin bearing ewes
- The ewe often utilises her body reserves to meet her nutritional requirements in late pregnancy

What are the implications of the significant increase in feed demand in late pregnancy?

- Early- and mid- pregnancy are the only stages in pregnancy where the ewe can gain body condition
  - therefore if feed is available *and/or* some ewes are in poor condition this is the time to act

- As body condition score rises to approx. 3.0 there is a general increase in performance levels of ewes
  - especially under poorer feeding conditions

Under nutrition

- Excessive under nutrition can lead to:
  - sub-optimum levels of colostrum production
  - delayed milk let down
  - lower peak and total milk production
  - low lamb birth weights
  - poorly developed maternal instinct
  - impaired lamb bonding behaviour
  - impaired thermoregulatory capability of lambs
  - metabolic diseases in ewes

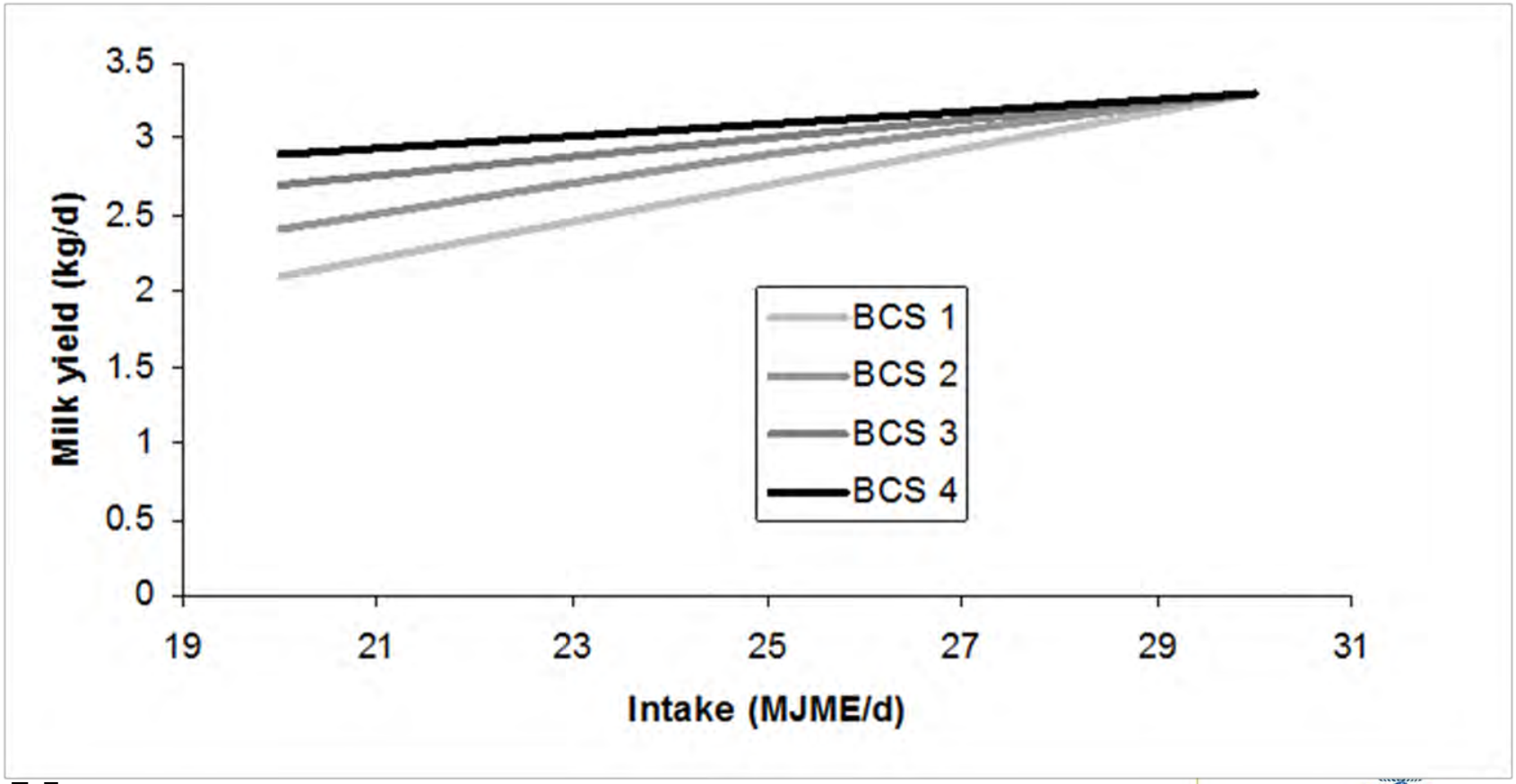
Reduced lamb survival

- lower lamb weaning weights
- lower ewe live weights and potential flow on effects

The interaction between nutrition and body condition

- Ewes of better condition can buffer under conditions of 'poor' nutrition
  - Thus when feed it short, it is the poorest condition ewes (especially multiples) that will benefit the most from any 'extra' feed that is available
  - Knowledge of stage of pregnancy also helps identify those that need it the most
  - Condition scoring at pregnancy scanning can help identify those that may benefit form help later

Effects of feeding level in lactation and body condition on milk production



T. Fraser

INTERNATIONAL SHEEP RESEARCH CENTRE

NUTRITIONAL MANAGEMENT IN PREGNANCY

Early pregnancy – what you should be doing now

- Determine the amount of feed you have now and predict what is likely to be available when ewes are in late pregnancy and early lactation

Early pregnancy – what you should be doing now

- If it is apparent feed is going to be short '<u>act now</u>'
  - sell non bred ewes (if crayon harness used)
  - sell some non-capital stock
  - obtain extra feed
  - determine which ewes would benefit from extra feed now (based on body condition) and which ewes can be held at maintenance to help build up covers
  - use of bulky feeds fine during this period (i.e. hay)
  - making sure pregnancy scanning is booked in
    - single vs. multiple, early vs. late

Mid-pregnancy

- Determine the amount of feed you have now and predict what is likely to be available when ewes are in late pregnancy and early lactation
- Pregnancy scanning
  - sell drys
  - consider selling some singleton bearing ewes or some non-capital stock if feed is to be short
  - identify poor condition multiple bearing ewes and adjust feeding levels for these ewes

Approx. pregnancy and lactational requirements

	Maintenance	Pregnancy	Lactation	Total	Kg lamb per kg DM eaten
Single	224 kg DM	28 kg DM	136 kg DM	388 kg DM	0.08
Twin	224 kg DM	45 kg DM	209 kg DM	478 kg DM	0.12
Triplet	224 kg DM	55 kg DM	293 kg DM	572 kg DM	0.13

Approx. rules used

Based on 60 kg ewe, 147 days pregnancy, 100 days lactation
11 MJ ME on average
Singleton 32 kg lamb at weaning
Twin 2 x 28 kg lambs at weaning
Triplet 3 x 25 kg lambs at weaning

Mid pregnancy nutrition

- In this period you can use bulky feeds as a significant proportion of diet (e.g. hay, bulbs) up until 4 weeks pre-lambing

- From scanning to late pregnancy ewes can be managed with pre-grazing covers in the range of 1000 – 1200 kg DM/ha and post grazing covers of 800 kg DM/ha
  - it is about limiting the time ewes graze below 800 kg DM/ha

Mid–pregnancy nutrition

- The poorer condition multiple bearing ewes should be moved on before covers get below 1000 kg DM/ha
- Singleton bearing ewes can be push to post grazing covers below 800 kg DM/ha if feed is short
- Later lambing ewes can be held at maintenance for another three weeks
  - saving feed

Mid–pregnancy shearing

- Shearing between days 50 and 100 of pregnancy can increase multiple-born lamb birth weight and survival (3-5%)

- Only ewes with a BCS of 2.5 or above will respond
  - intake post shearing for a week to 10 days will increase by 0 to 20%

Late pregnancy nutrition

- Approximately 10 days pre-lambing multiple bearing ewes should not be grazed below 1200 kg DM/ha (4 - 5 cm)
- No bulky feeds
- Singleton bearing ewes can cope with lower post grazing covers (≈ 1000 kg DM/ha)
  - prioritising feed to those that need it now
- Late lambing ewes can be held back three weeks
  - prioritising feed to those that need it now

Concentrate supplements

- The data on this in NZ suggests they tend not to be cost effective
  - we have a lack of range of supplements
  - difficult to feed out

- Only justifiable if feeding levels are really poor

INTERNATIONAL SHEEP RESEARCH CENTRE

NUTRITIONAL MANAGEMENT IN LACTATION

Lactation nutrition

- Ewes and their lambs should be offered a minimum pasture cover of 1200 kg DM/ha (not going above 1800 kg DM /ha)
  - set stocking rates adjust to match this

- The previous pregnancy feeding guidelines are based on the above level of lactation nutrition.
  - It is highly likely that if the above level of lactation nutrition cannot be provided, then the level of nutrition in pregnancy has even a greater impact on ewe and lamb performance

Alternative feeds in lactation

- Ewes can be lambed on a herb mix (Chicory, Plantain, Red and White Clover) or Lucerne

- Alternatively ewes and their lambs can be moved onto these when lambs are a few weeks of age

Conclusion

To ensure high performance of multiple-bearing ewes and their lambs requires optimal management from breeding to weaning