



Nutrition & Management of your flock

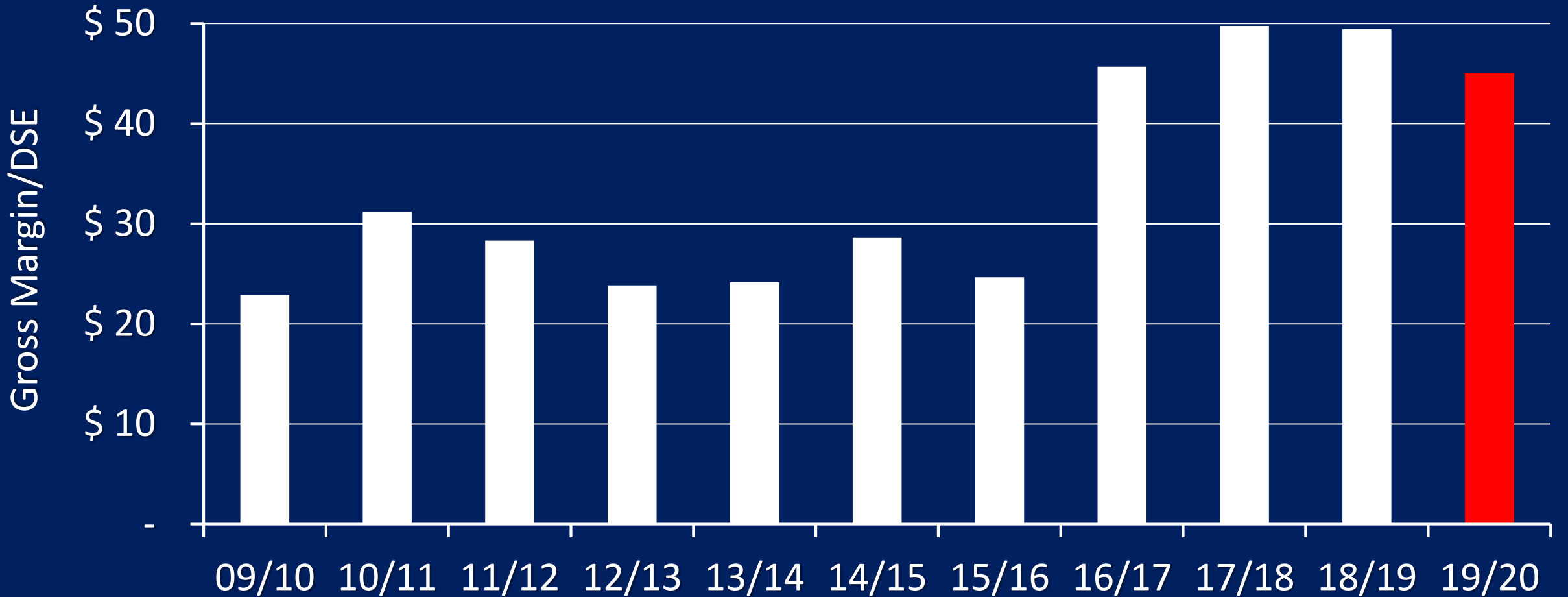
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Managing a sustainable sheep enterprise

- Key plank of sustainable is profitable
- Lessons from 2017/18/19? (Tough starts to season)
- Mated ewes are the engine room of the systems
- Principles of feeding
- Feed budgeting

Profitable Sheep...



Source: Compass Agricultural Alliance & Icon Agriculture

Lessons learned in poor seasons?

- Things didn't turn bad overnight, they happened incrementally
- Did you recognise the signs?
- Did you have trigger points?
- Did you act on these trigger points?

Next time - The exit strategy

- If this season was overwhelming - Come up with strategy before next season
- Determine potential stocking rate for a range of seasons
- What tactics are available?
- When will the tactics be employed?
- What & Who – mechanics of employing tactic
- Review, revise, repeat

Right Now - Breeding Ewes

- Breeding Ewes
- Good condition = good yield potential
- Why?
- Increased Condition Score
 - = ↑ wool cut
 - = ↑ conception rates

What options do you have to attain the result you want?

Condition score

Measure to manage

Condition Scoring

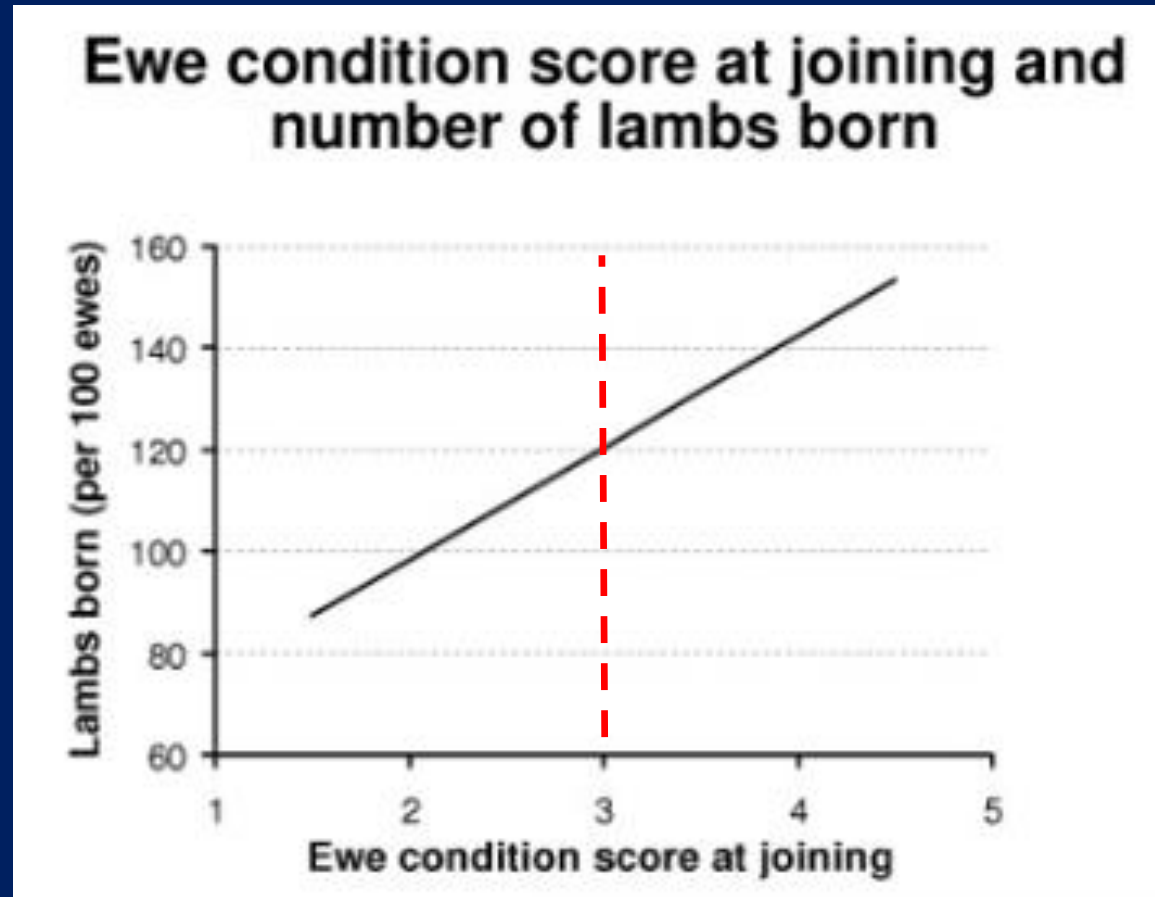
Condition scoring is a critical skill in poor seasons



| How to Condition Score | | |
|---------------------------------|--|--|
| <p>Condition Score 1</p> | <p>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).</p> | <p>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.</p> |
| <p>Condition Score 2</p> | <p>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.</p> | <p>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.</p> |
| <p>Condition Score 3</p> | <p>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).</p> | <p>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.</p> |
| <p>Condition Score 4</p> | <p>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.</p> | <p>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.</p> |
| <p>Condition Score 5</p> | <p>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).</p> | <p>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.</p> |

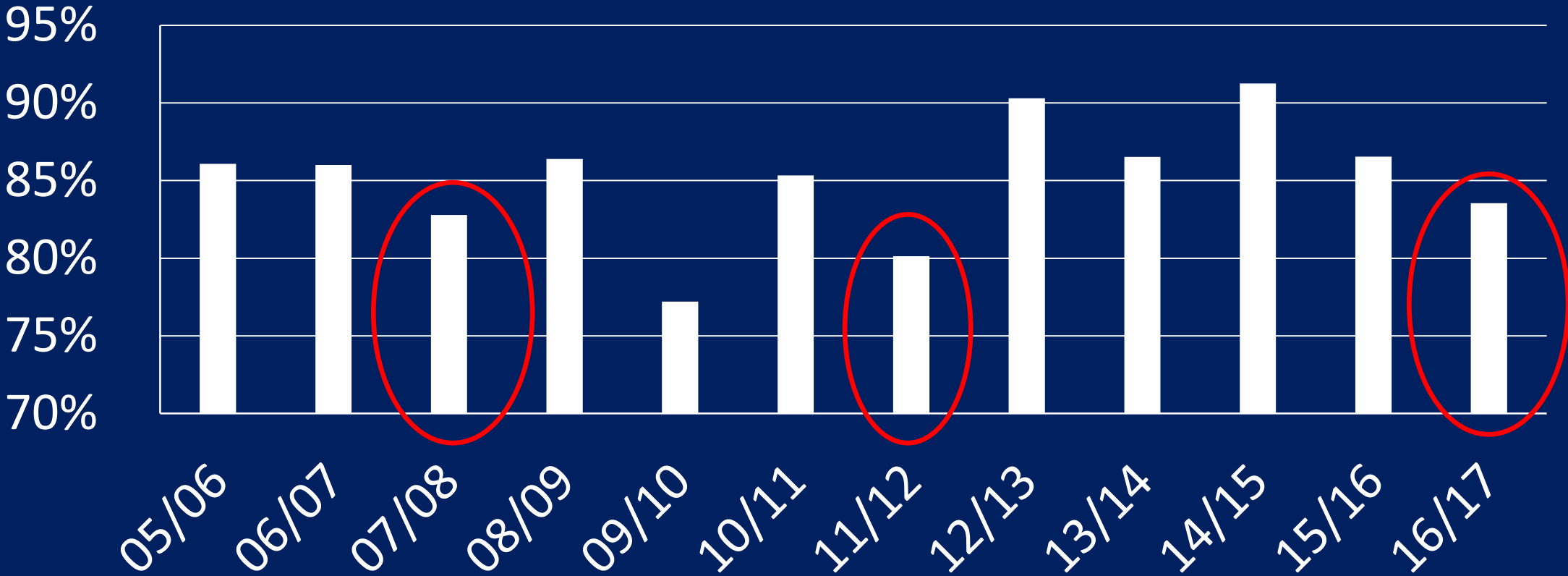
lifetimewool

Don't compromise ewes CS



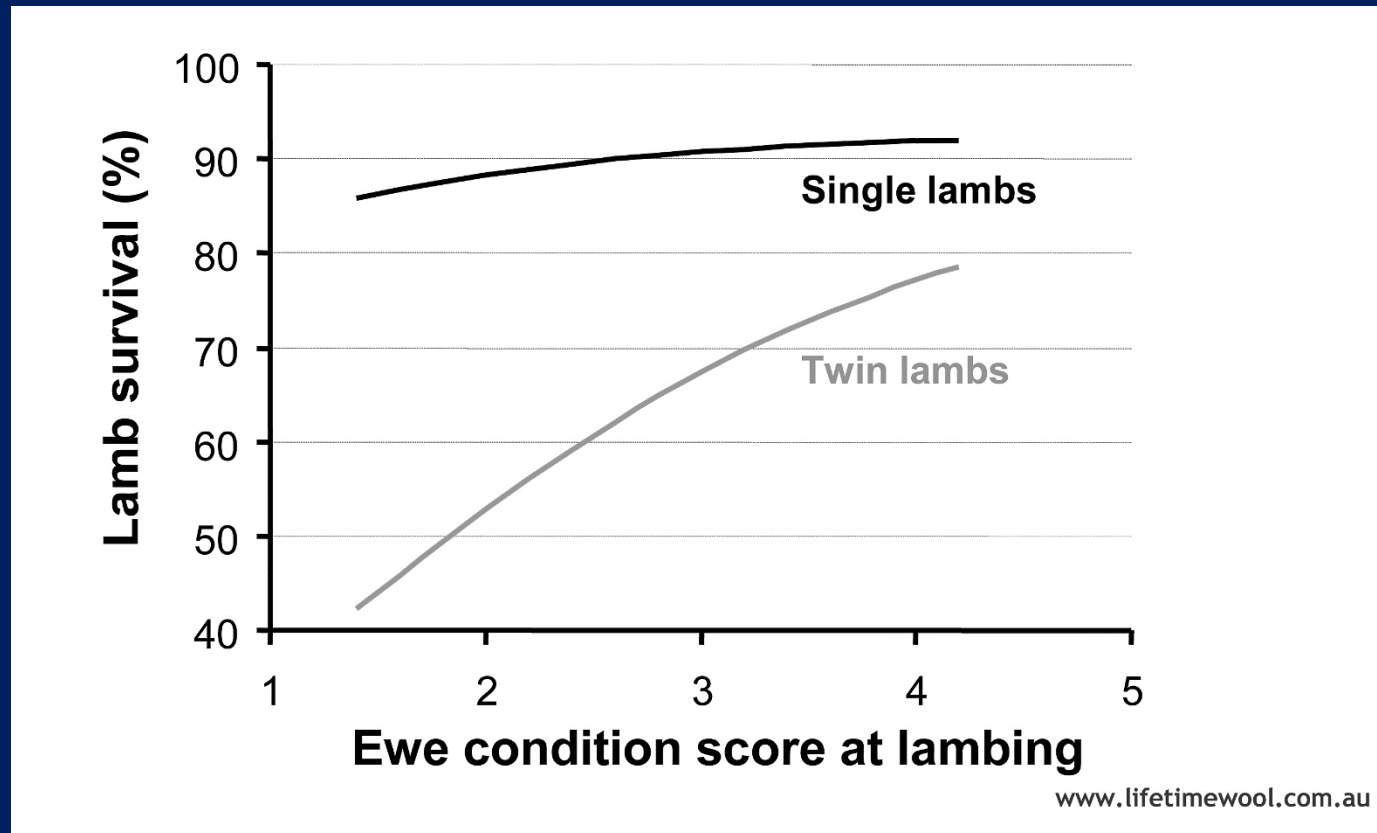
Average response is about 20 extra lambs per 100 ewes for an additional CS at joining

Don't let a poor season double up



CS Set's up potential – Lamb Survival

Starting too far behind will then effect survival



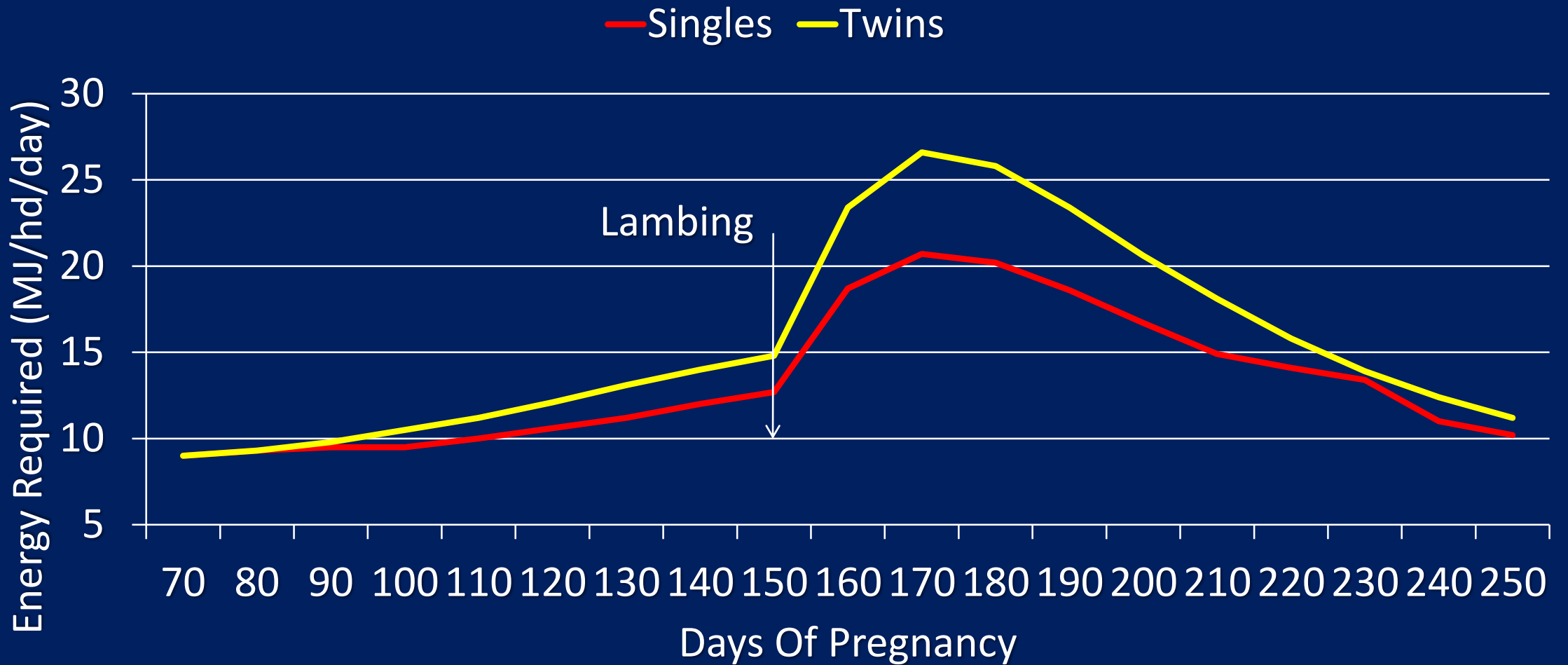
Principles of feeding

1. Energy – young & old sheep
 - Most limiting factor
 - Required for all body functions
2. Protein – young sheep
 - Balanced diet
 - Growth & muscle development
3. Vitamins & Minerals

1. Energy

- A 60 kg single bearing adult dry ewe requires:
 - 10 ME
- 2 weeks prior to lambing
 - 14 ME
- Day 30 lactation
 - 24 ME!

Energy Required



TOL: Implications for Energy Requirements?

| | System | | |
|---------------------------|----------------------|---------------------|------|
| | 1 | 2 | |
| Date of Lambing | 1 st July | 1 st May | |
| Energy Req: | | | |
| • @ 1 st April | 8.7 ME | 12.0 ME | 38% |
| • @ 1 st May | 9.6 ME | 13.5 ME | 41% |
| • @ 1 st June | 11.2 ME | 22.4 ME | 200% |

What do your sheep require now?

- Preg status – single/twin/dry?
- Day of pregnancy or lactation?
- = Energy required

TABLE 1a. Energy Required by Ewes @ Condition Score 3 to maintain weight

| Maintenance energy (MJ/d) for ewes under drought paddock conditions | | | | | | Confinement Fed | | |
|---|------------------------------------|------|-------------------------------------|------|------------------------------------|-----------------|--|------|
| Day of pregnancy | small frame (45kg) maintain @ CS 3 | | medium frame (50kg) maintain @ CS 3 | | large frame (60kg) maintain @ CS 3 | | medium frame maintain @ CS 3 | |
| | single | twin | single | twin | single | twin | single | twin |
| dry | 7.4 | 7.4 | 8.0 | 8.0 | 9.3 | 9.3 | 6.7 | 6.7 |
| 50 | 7.6 | 7.8 | 8.4 | 8.6 | 9.7 | 9.9 | 7.0 | 7.2 |
| 70 | 8.0 | 8.4 | 8.7 | 9.1 | 10.1 | 10.7 | 7.4 | 7.9 |
| 100 | 9.0 | 10.2 | 9.9 | 11.1 | 11.5 | 12.9 | 8.6 | 9.8 |
| 130 | 11.3 | 14.1 | 12.3 | 15.4 | 14.4 | 17.7 | 10.9 | 14.1 |
| days lactating | maintain @ CS 3 | | maintain @ CS 3 | | maintain @ CS 3 | | ewes and lambs | |
| | single | twin | single | twin | single | twin | | |
| 10 | 17.3 | 21.7 | 18.7 | 23.4 | 21.5 | 26.9 | | |
| 30 | 18.7 | 23.9 | 20.2 | 25.8 | 23.2 | 29.6 | | |
| 50 | 15.5 | 19.1 | 16.7 | 20.6 | 19.2 | 23.7 | | |
| | | | | | | | ask for advice on confinement feeding ewes and lambs | |

Right now...

- What feed is in my paddock?
- Dry FOO
- Green FOO
- Pasture growth rates

Dry Feed



- sheep are selective grazers. (10-15%)
- 3 - 6 ME (Plus grain on ground)

| Deficit MJ/day | expected loss g/h/d | CS in 30 days (45kg) | CS in 30 days (50kg) | CS in 30 days (60kg) |
|----------------|---------------------|----------------------|----------------------|----------------------|
| -1.00 | -29 | -0.12 | -0.11 | -0.09 |
| -2.00 | -57 | -0.23 | -0.21 | -0.17 |
| -3.00 | -85 | -0.34 | -0.31 | -0.26 |
| -4.00 | -113 | -0.46 | -0.41 | -0.34 |
| -5.00 | -142 | -0.57 | -0.52 | -0.43 |

8.4 MJ/day deficit!

Making up the difference

- What are you feeding?
- What energy level has it got?
- What rate are you feeding?
- How much energy does this supply?

What's grain worth to your sheep?

| | Price (\$/T DM) | Energy (MJ/kg) | Cost (c/MJ) |
|---------|-----------------|----------------|-------------|
| Oats* | \$380 | 10.7 | 3.55 c |
| Barley | \$280 | 11.9 | 2.35 c |
| Hay | \$250 | 9.0 | 2.77 c |
| Lupins | \$500 | 13.7 | 3.65 c |
| Pellets | \$450 | 11.5 | 3.91 c |

*Much variation in Oats

Principles of feeding Protein

- Low protein = limited intake
- Lupins or green feed
- Why?

Rumen cannot process the 3% bodyweight.

- The solution
 - To make up the protein deficit
- Feed Lupins if no green feed available

2. Protein

| | Price (\$/T DM) | Protein (%) |
|----------------|-----------------|--------------|
| Oats | \$380 | 8.8% |
| Lupins | \$500 | 31.3% |
| Barley | \$280 | 10.8% |
| Pellets (Low) | \$330 | 10% |
| Pellets (High) | \$450 | 14.1% |



2. Protein

- Low protein = limited intake
- Lupins or ~~green feed~~
- Why? - Rumen cannot process the 3% bodyweight
- Making up protein deficit?
- Feed Lupins if no green feed available
- Incredibly important in growing sheep

3. Minerals

Selenium

Vitamin E

Calcium based licks

Why?

Short period on green feed

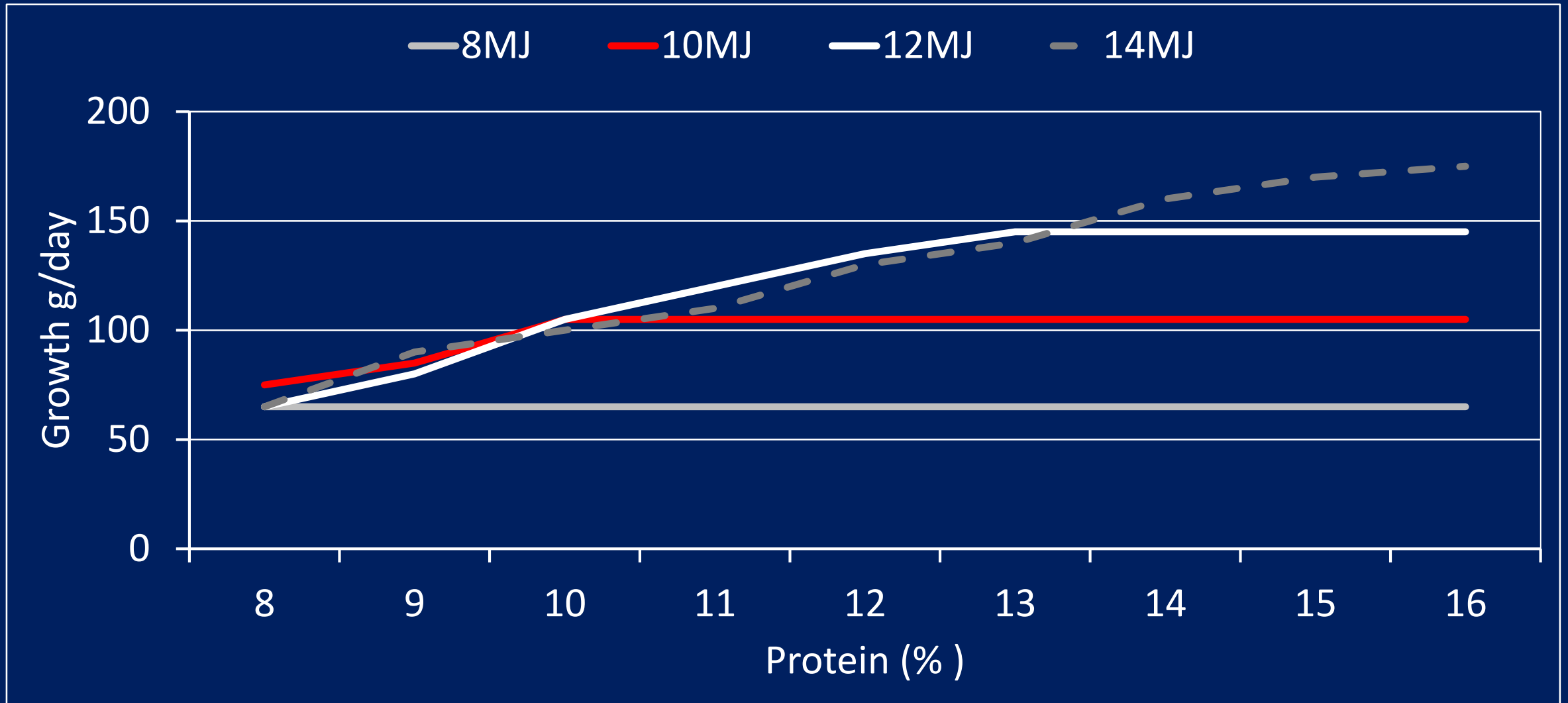
Long periods on cereal grains

Best practice management?

Weaners

- High Protein - 15% (depending on size?)
- Growing or dying
- No worms
- Vitamin E (If no green pick)
- Selenium
- Find ways to minimise the tail! Eg. Draft off the tail

Growing Weaners



How much feed do you need?

- Depends on..
 - nutritional requirements of the animal being fed
 - Number of animals to feed
 - Feed on offer (FOO)
 - Energy content of feed
 - How long you will be feeding for? Until August?
- **Sheep Feeding Model**

Today's Points

- Exit Strategy
- Principles of feeding
 - Energy
 - Protein
 - Vitamins & minerals
- Managing Ewes
- How much feed do you need?