Autumn Options for Dairy

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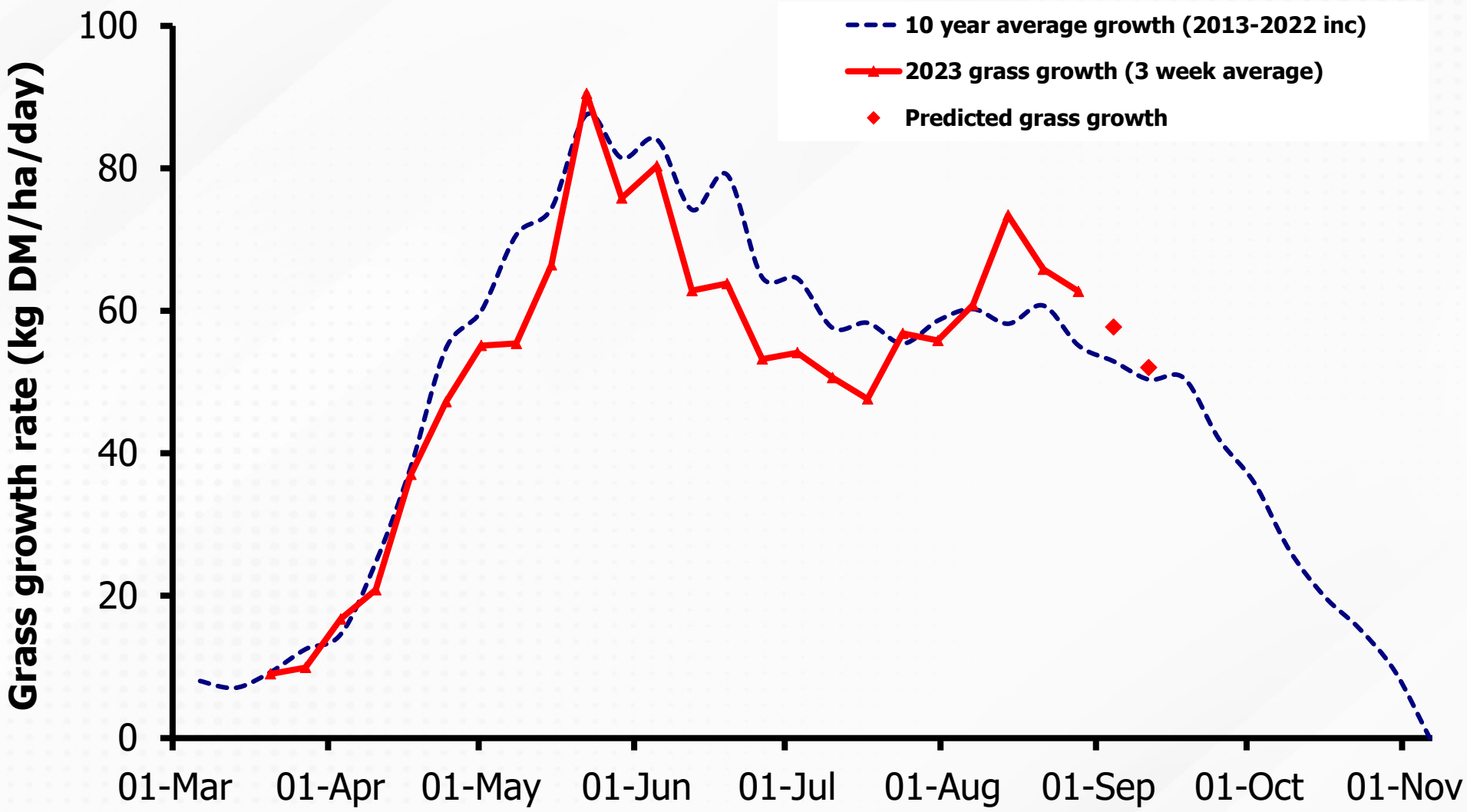
GrassCheck Plot Growth 2023



Autumn Options for Dairy – Silage and Feeding Considerations

Silage 2023 - A Season of Two Halves

Sinclair Mayne

31 August, 2023

Background

- After an excellent start in May and June, silage making from late June onwards has been a major challenge

- Key Implications:
  - Excellent First Cut Silage on many farms
  - Second cut delayed and many silages of very poor quality
  - Limited opportunity for third cut on some farms

Silage 2023 – The Issues

- Silage quantity?
- Impact of low quality second cut?
- Feeding options this winter with lower milk price

Winter Feeding 2023

- Planning starts now
  - Assess quantity and quality.

  Quantity - If need additional forage, better to explore options now rather than in March/April, 2024 – prioritise winter fodder budget.
  - If good autumn conditions – need to maximise use of autumn grazing
  - Options for fodder purchase?
  - Move surplus stock on quickly

  Quality – Analyse silages now to determine feed value

- Plan winter feeding strategy

Winter Feeding 2023 – Impact of Silage Quality

- 2023 Second Cut Silage

  - Low energy value (reduced ME)

  - Low dry matter (as harvested in variable weather))
  - Poor fermentation (low grass sugar and wet grass))) Low intake potential

- Net result is lower energy intake – impacts production, health and fertility

Winter Feeding 2023 – Impact of Silage Quality

- **Impact on milk production:**

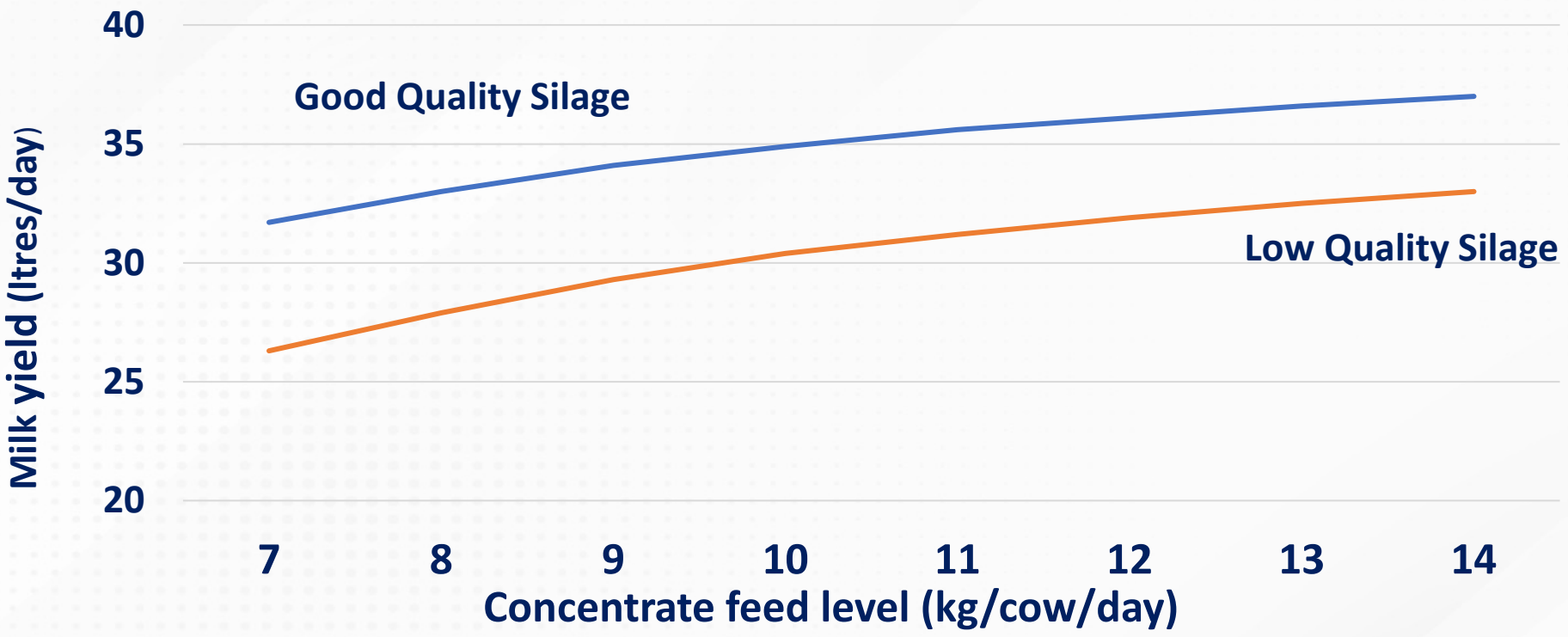
- Digestibility/ME value

Each unit decline in D value % = 0.3 – 0.4 litres/day less milk (and lower milk protein)

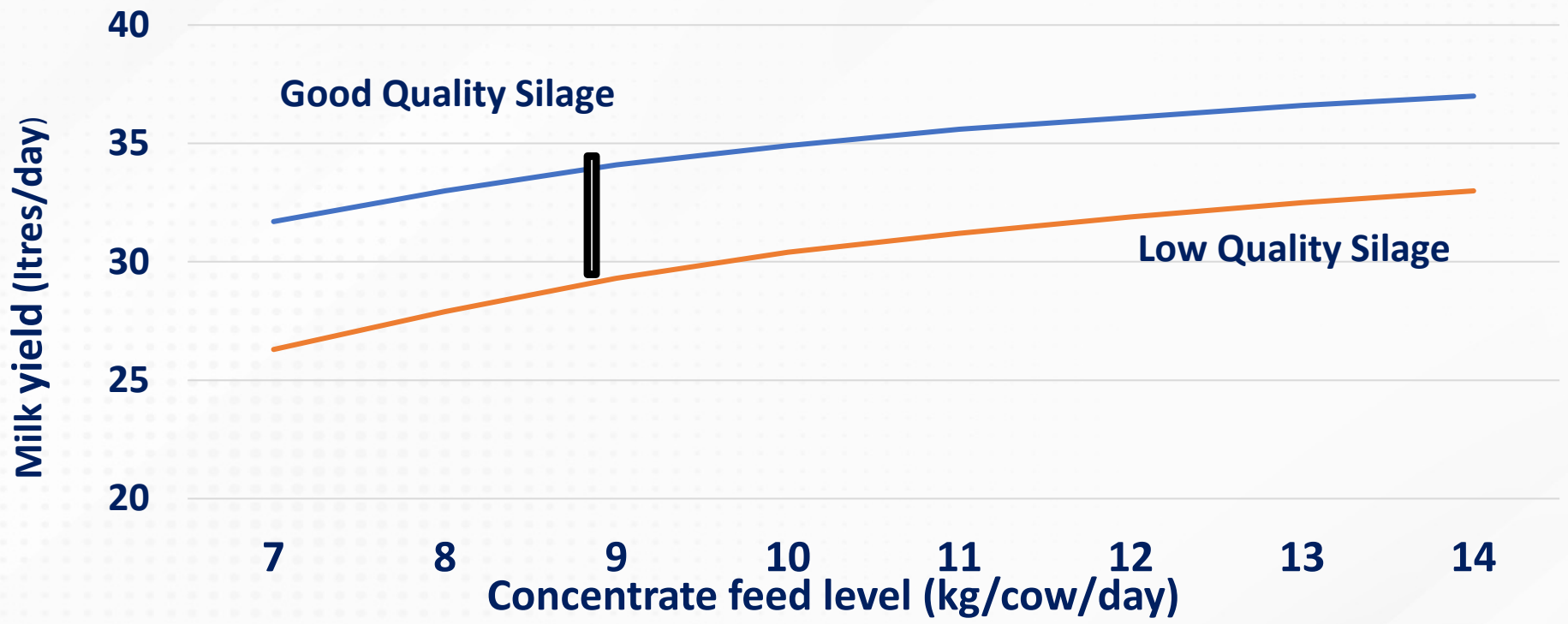
- Dry matter and fermentation

If silage is wet and poorly fermented, intake will decline with further reduction in cow performance

Typical Milk Yield Response to Concentrate Feeding



Typical Milk Yield Response to Concentrate Feeding



Winter Feeding 2023 – Impact of Silage Quality (Ferris, 2022)

	High Quality	Medium Quality
D Value (%)	75	68
ME (MJ/kg DM)	12.0	10.9
Milk Yield (litres/day)	39.0	36.6 (- 2.4)
Fat (%)	4.03	4.12
Protein (%)	3.33	3.18 (- 0.15)

Silage Feeding This Winter

- Plan winter feeding strategy based on silage quantity and analysis

  - Develop a winter feed budget based on forage availability and cow/youngstock numbers (lower concentrate feed levels increase silage requirement!)

  - Prioritise first cut silage for early lactation cows

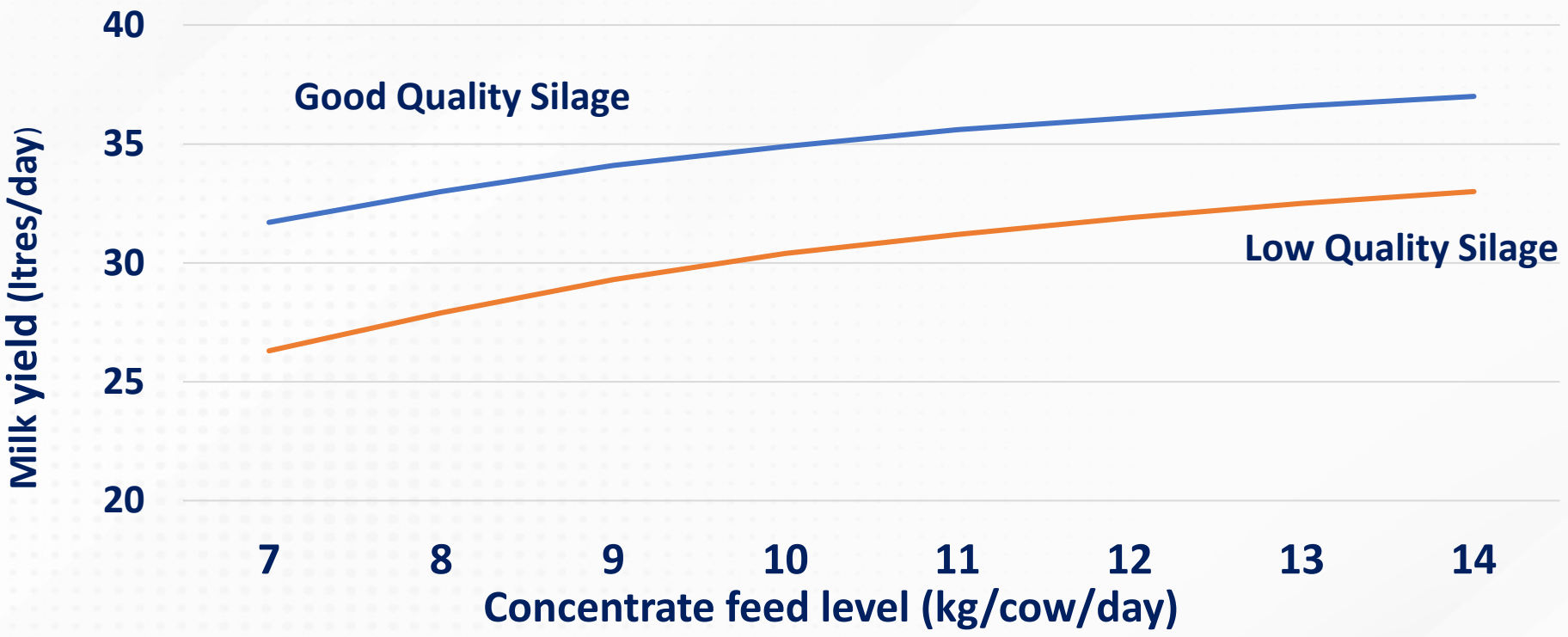
  - Milk yields likely to be lower with second cut silage as a result of lower ME value (need to factor this in to financial budgets this winter)

Winter Feeding – Milk Price:Concentrate Cost Ratio

	Winter 2022	Winter 2023
Milk Price (Oct – March) (pence/litre)	46.0	30.0?
Concentrate Price (£/tonne)	380	350?
Litres of milk/kg of conc	0.82	1.12

Need 1.12 litres milk per kg of concentrate compared to 0.82 litres in 2022

Typical Milk Yield Response to Concentrate Feeding



Winter Feeding 2023 - Summary

- Winter of 2023/24 will be very challenging, but planning now will reduce some of the pressure and help to control costs
  - Assess silage quantity and quality now and review options:
    - If good autumn conditions – need to maximise use of autumn grazing
    - Options for fodder purchase
    - Sell any surplus stock now

- Maximise the potential of first cut silage – target to highest yielding cows

- Review options for feeding second cut silage, depending on analysis

- Reduction in milk price/concentrate cost ratio will have major implications for concentrate feed levels this winter

Autumn Options with Lower Milk Prices

Martin Reel
CAFRE Business Team

Background

Last Year

- Rising input Costs - feed, fertiliser, energy

&

- Rising Milk Price - *32 to 44.5ppl*

This year

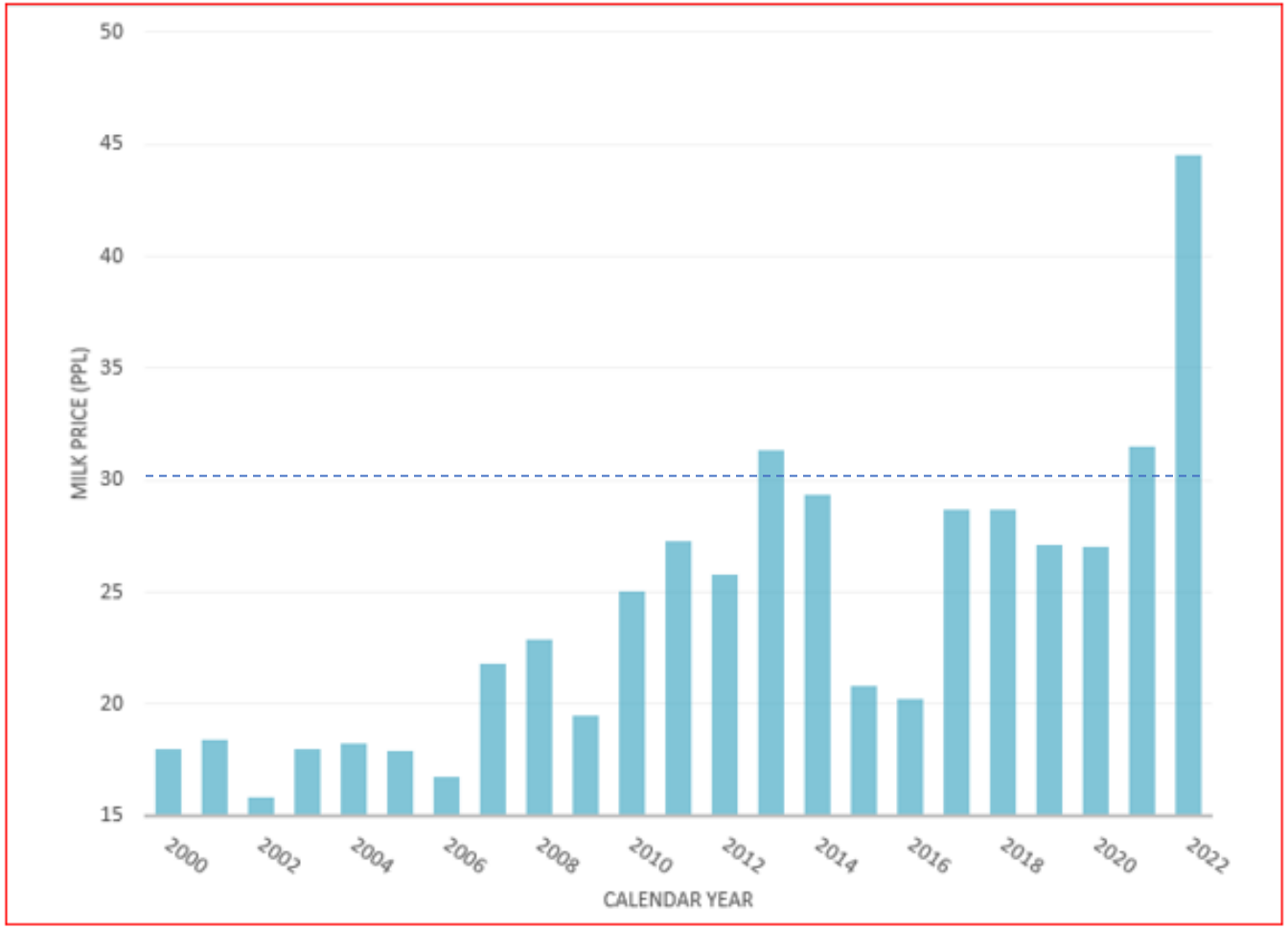
- High input costs

but

- Falling Milk Price - *44.5 to 30ppl*

CASHFLOW!

Figure 1. Northern Ireland milk price (ppl) since 2000 (DAERA statistics)



Managing Cashflow

Approaches

- Passive - Do nothing

- Knee jerk actions

  - Slashing costs – indiscriminately

  - Increase production via extra concentrate feeding

Partial Budget for marginal litres from extra meal

Last Winter: Good financial return from feeding extra concentrates

This Winter: Much poorer return from feeding extra concentrates

Also need to take account of other additional costs, energy

Partial Budget for marginal litres from extra meal

extra 1.2 Litres* for extra Kg of concentrate

Last Winter

Milk price - 47 ppl

Extra milk value from 1 extra Kg concentrate:

47 x 1.2 = 56.4p

Concentrate price: £400/t (40p/Kg)

Net Return for each additional milk litre fed for;

(extra milk value/L – extra concentrate cost/L):

56.4 ppl – 40 ppl = **16.4 ppl**

This Winter

Milk price - 30 ppl

Extra milk value from 1 extra Kg concentrate:

30 x 1.2 = 36p

Concentrate price: £350/t (35p/Kg)

Net Return for each additional milk litre fed for;

(extra milk value/L – extra concentrate cost/L):

36 ppl – 35 ppl = **1 ppl**

Partial Budget for milking 3 times a day

Assumptions

100 cow herd averaging 30 Litres/day

Labour: £50/Milking* (for 3rd milking each day)

Electricity: - usage 30p/kwh

- usage 5kwh/100 Litres (4.5p/cow)

Feed-rate: 2.22* Litres/Kg of concentrate *(feed at £350/t ((47.3p/cow)*

Concentrate cost: £350/t

15% response rate

Partial Budget for milking 3 times a day

- **Extra Income:** 90p/cow
- **Extra Costs** Labour = 50p/cow
  Electricity = 4.5p/cow
  Feed = 47.3p/cow
- **TOTAL extra Costs** 101.8p/cow

- Loss from 3X milking 11.8p per cow per day

Managing Cashflow

- **Pro-active approach required**
  - Establish your own monthly cashflow position now
    http://www.cafre.ac.uk/CAFREcashflow
  - Engage with professional
    - *CAFRE Adviser*
    - *Bank/accountant*
    - *Suppliers/consultant*
    - *Rural Support*
  - *Various tools and support available*
    - Dairy MOC
    - Financial benchmarking

Managing Cashflow

- Mitigate the effects of lower milk price through increased efficiency
  - Cow health and fertility management
  - Feed efficiency
- Other options to consider
  - Cull unproductive, less efficient stock
  - Reassess dairy replacement enterprise

Managing the basics – ensuring business resilience

- Soil and nutrient management
- Forage quality – silage analysis
- Margin over concentrate - feed efficiency
- Herd health and fertility
- Lifetime yield – 35,000L
- Quality pays – 575kgMS+

Summary

- Act early
- Assess current position
- Measure and monitor
- Engage to professionals
- Make use of the available business tools

Autumn Options for Dairy - Health Considerations

Dr Mark Little

Fane Valley Veterinary Manager

What are the issues?

- Less silage available for winter feeding
- Poorer quality silage, particularly lower ME

- The impacts on production have been covered
- What are the impacts on health and fertility?
- What can we do now to prevent issues over the winter?

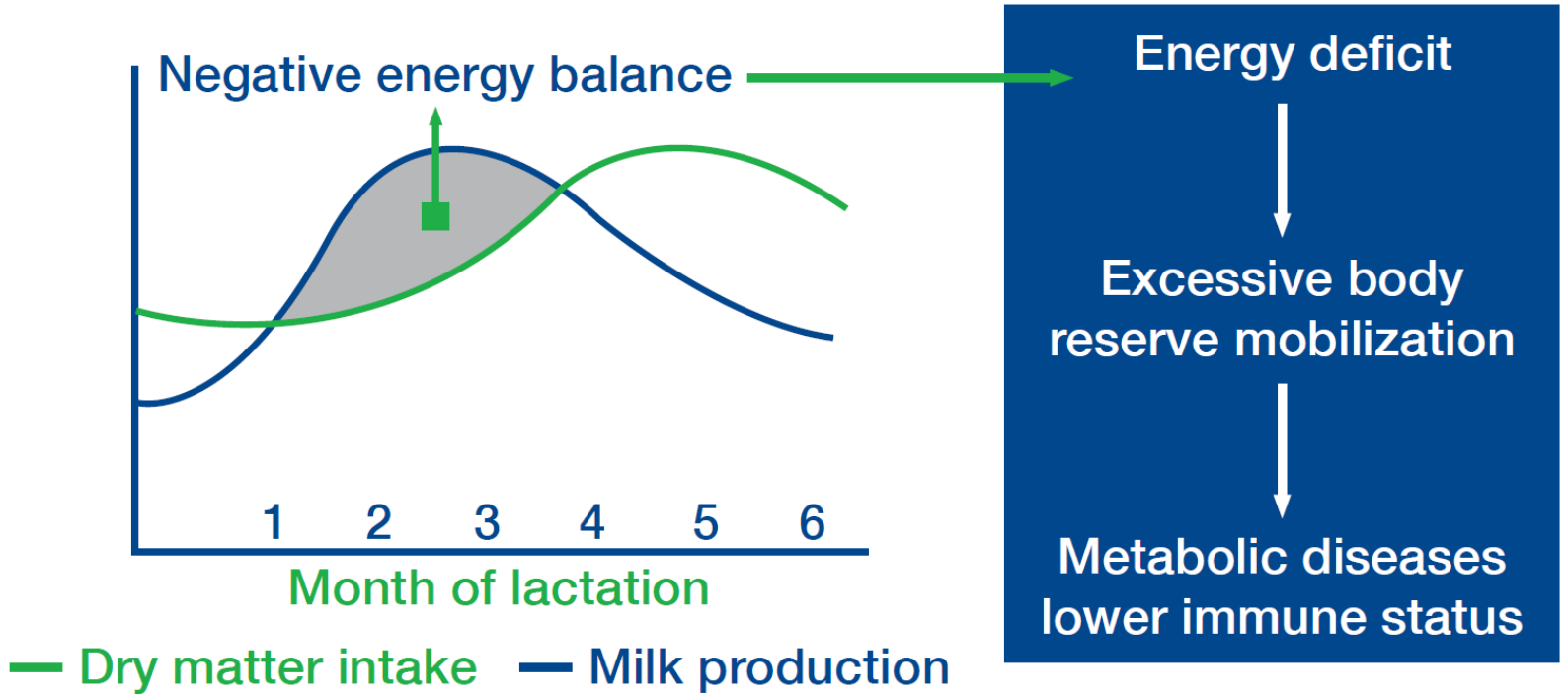
Nutrition is linked with Health and Fertility

- The nutritional status of dairy cows is closely linked to the maintenance of an optimal immune function and health

- Poor nutrition during the dry period and early lactation results in lower hormone levels
  - Less strong heats
  - Delayed ovulation
  - Lower conception rates

Health issues - energy balance

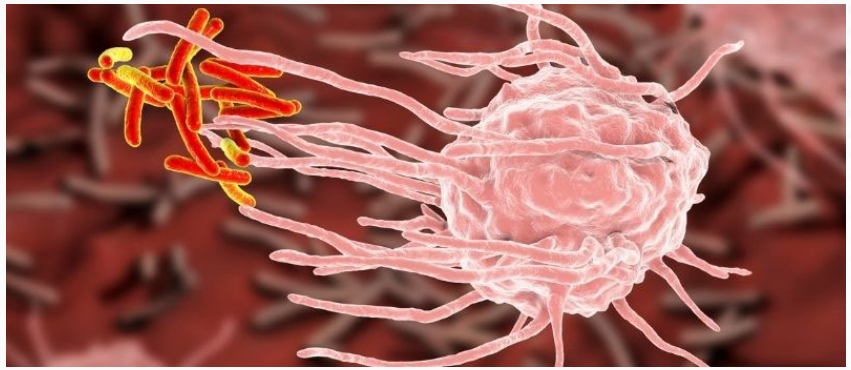
- The issue of a lower energy intake is particularly important for energy balance during early lactation



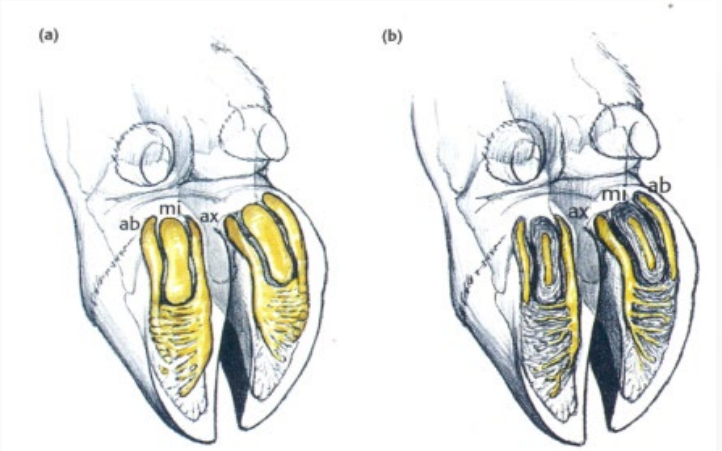
Signs of negative energy balance

- Clinical ketosis – unusual

- Subclincial ketosis
  - Up to 30% of cows
  - High milk fat %, low milk protein %
  - Immune suppression
  - Mastitis, metritis, dirty calf bed
  - Lameness
  - Reduced fertility

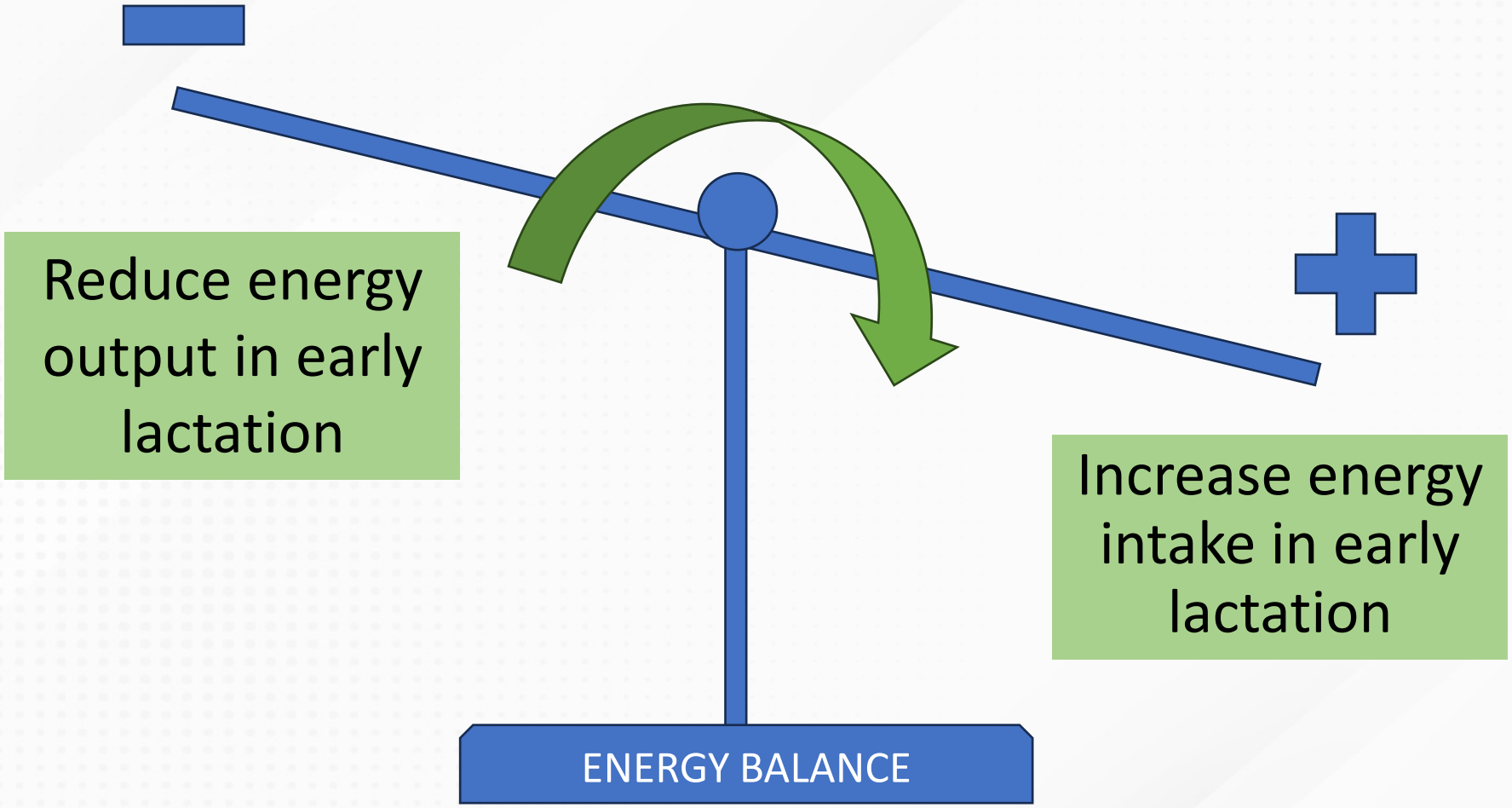


Glucose is the fuel for immune cells



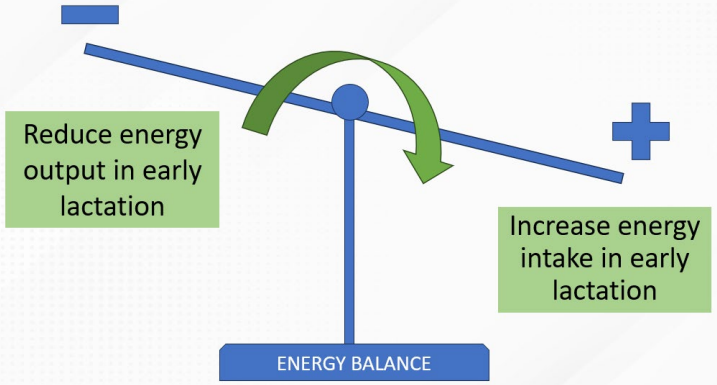
The fat pad acts like a shock absorber

Preventing negative energy balance



Preventing negative energy balance

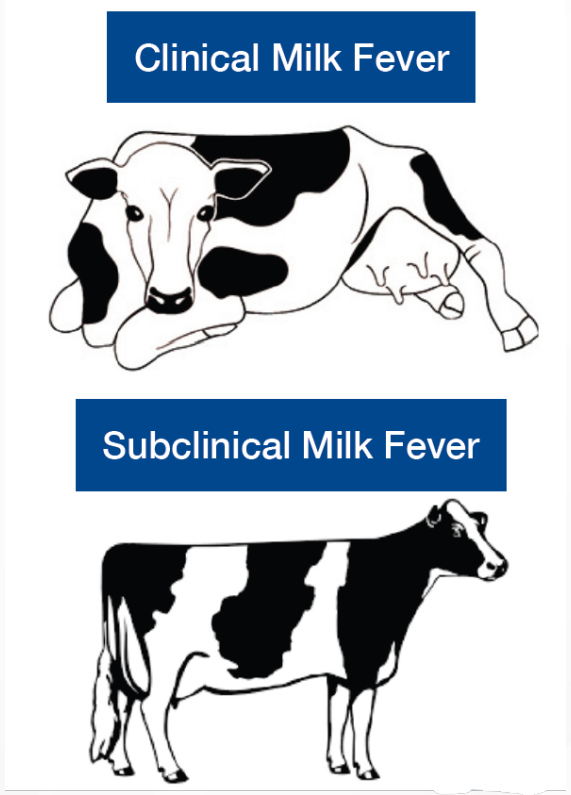
- Reduce energy output in early lactation
  - Offer a lower protein concentrate? (reducing milk yield)
  - Caution – the ration needs to balance so always consult your nutritionist



- Increase energy intake in early lactation
  - Correct BCS at calving of 3.0 (drive intakes)
  - Target the good quality silage to early lactation cows
  - Lower ME silage to dry cows but keep intakes high
  - Strategic use of Monensin (Kexxtone) boluses

Health issues – milk fever

- As there is less and poorer quality silage available
- Ensure the dry cow diet is formulated correctly
- Prevention is better than cure
  - For every case of milk fever there are 8 cases of subclinical milk fever (low blood calcium)
  - Displaced abomsum
  - Retained placenta
  - Metritis and dirty calf bed
  - Lower intakes and ketosis
  - Mastitis

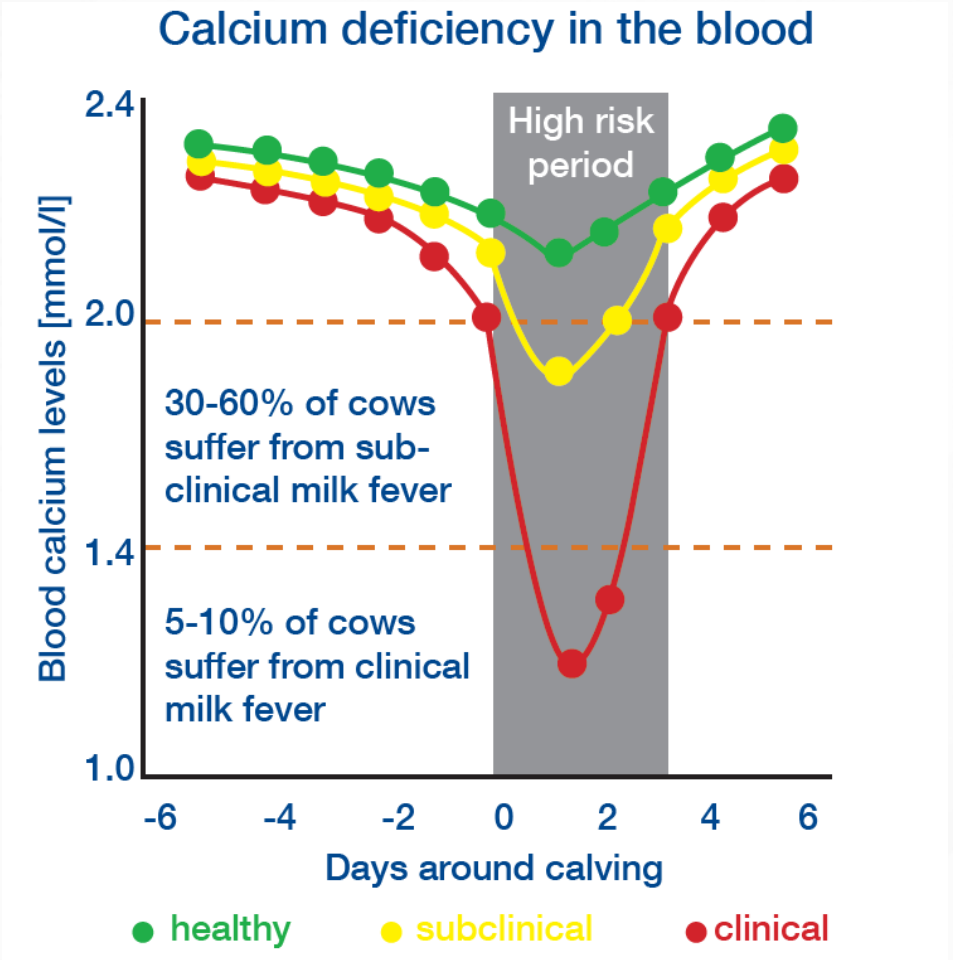


Preventing milk fever

- BCS of 3.0 at calving

Correct mineral profile

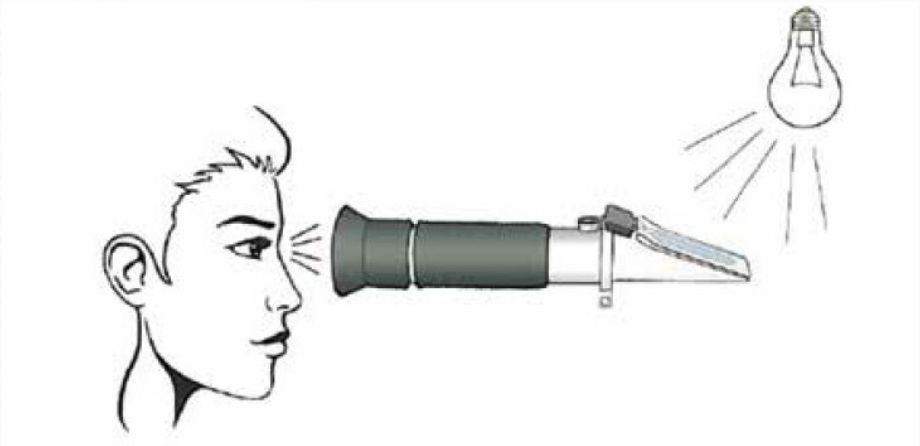
- Dry period calcium restriction
- Dry period magnesium supplementation
- DCAB diets
- Calcium supplementation just at calving

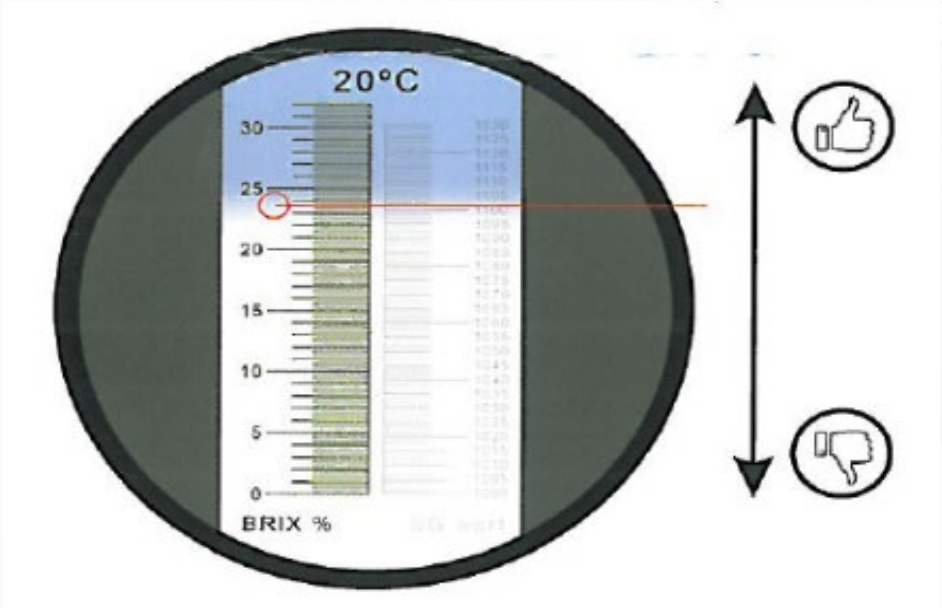


Care with dry cow diets and colostrum

Colostrum is vital to support calf growth and immune function

- Low colostrum production and poor quality colostrum
  - Linked with low energy intakes
  - Low amount of rumen by-pass protein
- Check colostrum quality





Cost savings – what about vaccines?

- No ‘one size fits all’ with vaccines
- It should be tailored to the herd challenge

Test		Result	Category
BVD	S/N Ratio	80.61	High Positive
IBR gE	S-N	0.77	Positive
Johnes	% S/P	31.72	Positive
SALMONELLA	% Positivity	153.23	Positive
LEPTOSPIROSIS	% Positivity	71.15	High Positive

Test		Result	Category
BVD	S/N Ratio	20.45	Low Positive
IBRgE	S-N	0.84	Negative
MAP	S/P%	10.28	Negative
SALMONELLA	% Positivity	0	Negative
LEPTOSPIROSIS	% Positivity	102.46	High Positive

Cost savings – what about vaccines?

- Speak to your vet about any lab results
- Consider the risk e.g. is the herd open or closed?

- Consider vaccines as insurance policies
- Cutting costs by dropping a vaccine can have severe consequences
  - Salmonella and abortion storms
  - IBR can reactivate at times of stress (e.g. poor nutrition)

But ask some questions about vaccines

- If you need to herd vaccinate for IBR three times a year
  - Change the timing of vaccination to a less stressful time
- Calf pneumonia vaccination
  - Can a management change help?
- If cattle are housed earlier, pneumonia vaccination may need to start now
- Talk your vet to get help

Cost savings – Worm and Fluke

- Strategic use of worm and fluke products
- Do not use them if they are not needed – not only wasting money but building resistance
  - Bulk milk tank samples
  - Faecal egg count samples for young stock

LIVERFLUKE	% S/P	23.90	Negative
OSTERTAGIA	ODR	0.41	No Effect

LIVERFLUKE	% S/P	74.59	Positive
OSTERTAGIA	ODR	0.78	-0.88 kg/cow/day

Cost savings – 2022 Fluke Example

Herd 1
negative fluke on blood sample

Herd 2
8/8 negative fluke blood samples

Herd 3
8/8 negative fluke blood samples

Herd 1
6/6 negative fluke blood samples

Herd 2
2/8 positive fluke blood samples

Herd 3
4/6 positive fluke blood samples

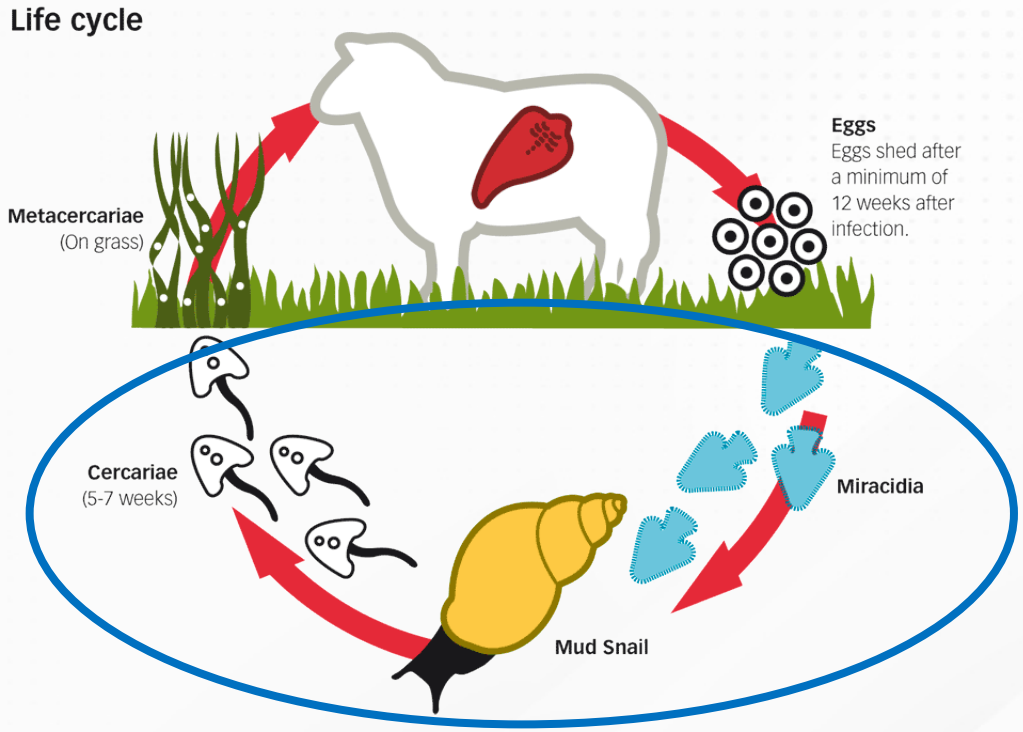
18th October → 28th October → 21st November

Therefore, if any of these herds had used a fluke treatment before the 21st of November 2022, this would have been money wasted

Cost savings – 2023Fluke Predictions

- Summer 2022 was dry
- 2023 was wet from start of July onwards
- Perfect conditions for the mud snail which is needed for fluke development

- Talking to vets there has been no positive fluke blood results yet
- We will be checking closely from mid-September onwards



Use this time to strategically cull cows?

- As Silage quantity and quality is lower

- Solutions
  1. Buy more forage
  2. Reduce number of cows

- Could now be the time to cull passengers?
  - High SCC cows
  - Johnes cull

Summary

- Prevent against negative energy balance and Milk Fever
  - Use the good quality silages for early lactation cows
  - Formulate the poorer silages ensuring correct mineral profile for dry cows
- Vaccines – prevention is better than disease outbreaks
- Worm and Fluke products
  - There is an opportunity to cost save here
  - Check to see if you need to use worm or fluke treatments
- Could now be the time to strategically cull cows?
- Always consult your vet and nutritionist

Forthcoming CAFRE On-Farm Events

Date	Time	Title	Location
5th September	19:30	Healthy Hooves: Cutting the costs of lameness on sheep farms	Steven Thompson, Dungannon
7th September	19:30	Healthy Hooves: Cutting the costs of lameness on sheep farms	Andrew Wilson, Moira
12th September	19:30	Healthy Hooves: Cutting the costs of lameness on sheep farms	Aubrey Bothwell, Maguiresbridge
14th September	19:30	Healthy Hooves: Cutting the costs of lameness on sheep farms	Stephen Sproule, Castlederg
19th September	11.00	Soil Nutrient Health Scheme – Results into Practice	Jason Rankin, Newtownards
19th September	19:30	Healthy Hooves: Cutting the costs of lameness on sheep farms	Ronnie Duncan, Ballycastle
21st September	19:00	Soil Nutrient Health Scheme – Results into Practice	James Henderson, Kilkeel
21st September	19:30	Healthy Hooves: Cutting the costs of lameness on sheep farms	Adrian Cooper, Garvagh
26th September	19:00	Soil Nutrient Health Scheme – Results into Practice	John Milligan, Castlewellan
28th September	11:00	Soil Nutrient Health Scheme – Results into Practice	John Rafferty, Poyntzpass

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Starting at 8pm, lasting for 1 hour

SESSION DATES AND TOPICS:

26 September: Increasing Production Efficiency
3 October: Resilient Grassland Management
10 October: Dairy Nutrition
17 October: Nutrient Management in Grassland
24 October: Farm Case Studies of Carbon Benchmarking

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AFBI
Soil Health Conference

26th October 2023

at

La Mon Hotel, Belfast

AgriSearch
Research and Innovation Needs Conference

28th November 2023

at

Dunadry Hotel, Templepatrick

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