Autumn Options for Beef

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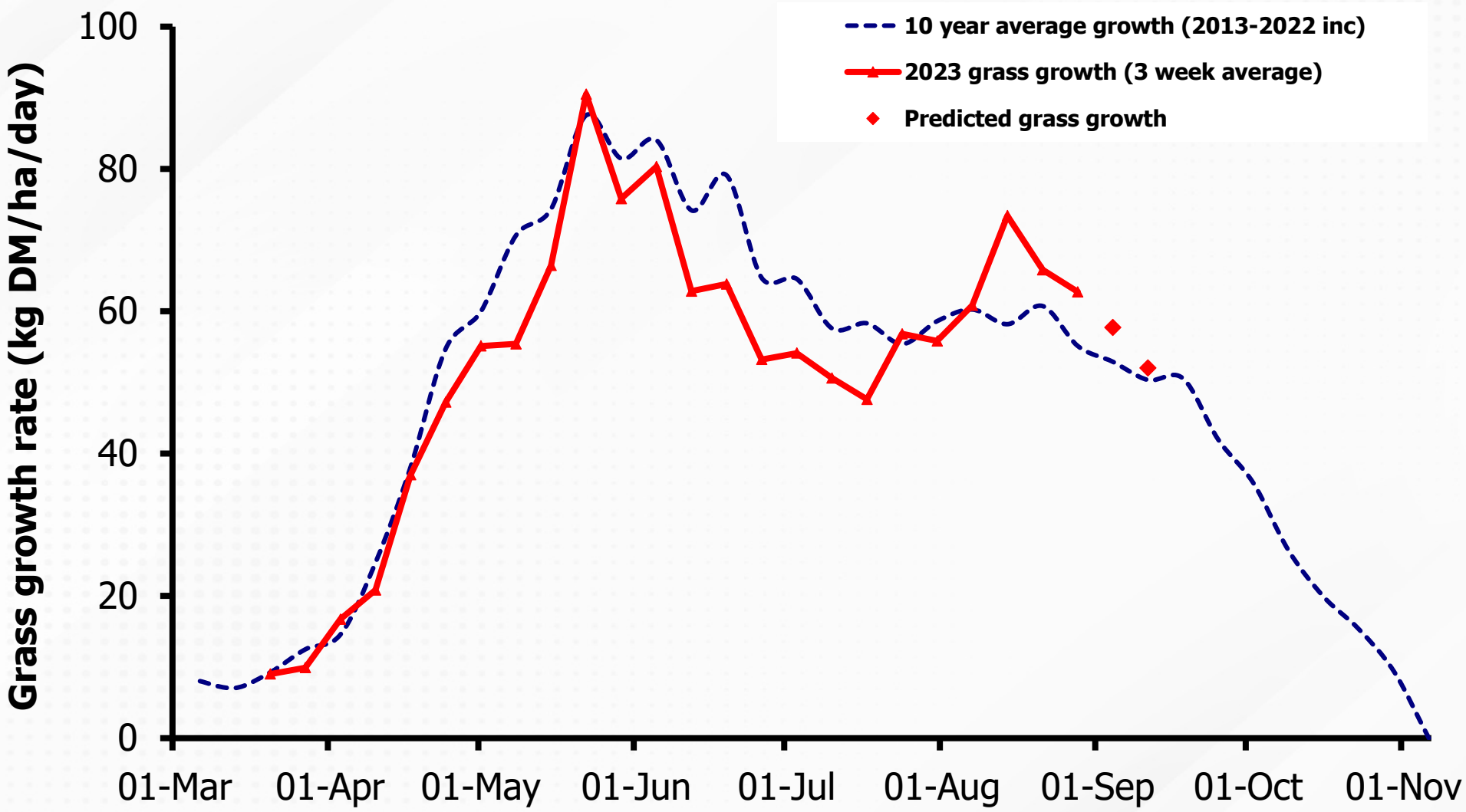
GrassCheck Plot Growth 2023



Forward plan to reduce wet weather impact

Nigel Gould

Beef & Sheep Adviser, CAFRE

Develop a strategy for your farm

- Assess
  - Grass availability and utilisation
  - Current winter feed stocks on farm
  - Forage quality
  - Animal numbers and categories
  - Identify if a deficit is likely to occur
- Balance feed supply with animal demand
  - Increase feed supply
  - Reduce animal demand

Silage Quality

- Dry Matter – important in calculating silage in silo
- Key to targeting quality silages to priority stock
- Quality will determine concentrate requirement

Silage - Quantity

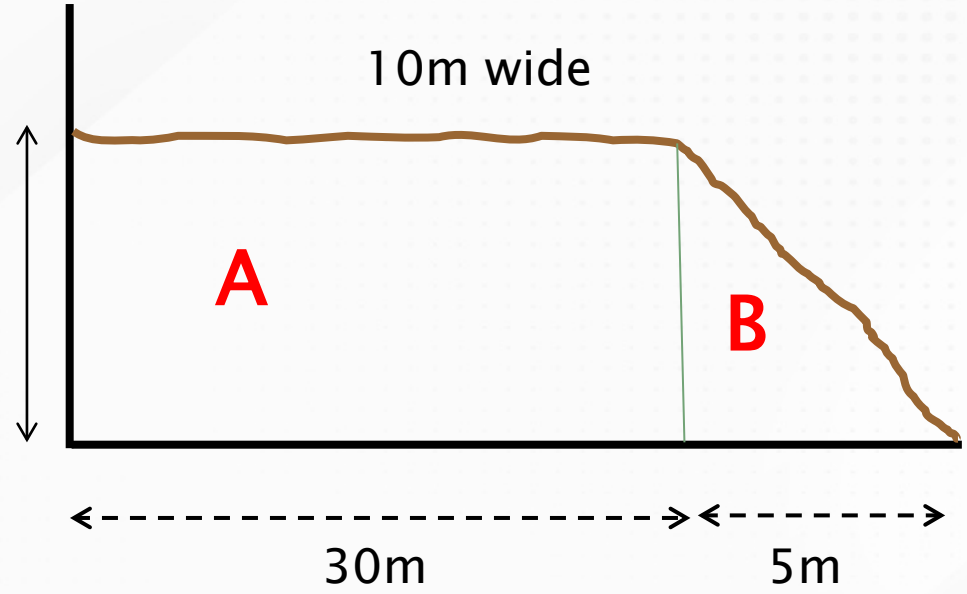
Section A:
30 x 3 x 10 = 900m³

Plus

Section B:
5 x 3 x 10 = 150m3 X 0.5 = 75 m³

Total = 900 + 75 = 975m³

3m



Tonnes of Silage = Silage Pit Volume x Dry Matter Conversion Factor

975 x 0.6 (30% DM) = **585** Tonnes of Silage

Single Dry Matter Content (%)		Conversion (volume in m³ to tonnes of fresh silage)
Grass Silage:	18	Multiply by 0.81
	20	Multiply by 0.77
	25	Multiply by 0.68
	30	Multiply by 0.60
Whole-crop:	40	Multiply by 0.67
Forage Maize:	30	Multiply by 0.75

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Silage - Quantity

Silo	Dry Matter (%)	Length (m)	Breadth (m)	Height (m)	Volume (m3)	Tonnes
1	25	10	7	2.1	147	100
2	25	15	8	2.5	300	205
3						0
4						0
5						0
				Tonnes		305

Silage DM 25%

0.68 t/m3

Bales Made	70
Average Bale Weight (kg)	850
Tonnes	59.5

Total Silage (Tonnes) **365**

FORAGE PLAN

Livestock	Number of Stock	Silage required (tonnes/month)	Months Housed	Silage required (t)	
Ewes		0.2	1.0	0	
Dairy cow Milking		1.5		0	
Dairy Cow Dry		1.0		0	
500kg Steers	41	1.0	4.0	164	
300kg Steers	34	0.8	4.0	109	
500kg Heifers	25	1.0	4.0	100	
300kg Heifers	9	0.8	4.0	29	
Suckler Cows (+ calf)	7	1.2	4.0	34	
Suckler Cows (dry)		1.0		0	
	116				

Total Silage required **435**

Deficit: 70 tonnes

Options – Spring calving suckler herd

- Creep grazing
- Creep feeding concentrates
- Earlier weaning
  - House cows or use to graze poorer quality swards
  - Scan and cull empty cows
- Weanling/store producers – sell earlier?

Options – Store cattle

- Weigh cattle and group by size/expected finishing time
- Complete beef budgets
  - If silage availability is low – consider sale of certain stock as stores
- Consider housing and earlier finishing of forward stores
- Younger, lighter stores may be targeted for grazing swards

Silage Feeding Order

Target best silage to most productive stock

- Finishing cattle
- Lactating cows
- Young growing cattle
- Dry cows

Avoid/Reduce effects on grass next spring

- Minimise poaching
  - Target lighter stock to heavier ground
  - Move cattle on quicker if required
- Repair damaged swards (if possible)
  - Alleviate compaction
  - Grass harrow
  - Grass seed
- Consider length of rest periods required

Options for considering within beef production this autumn

Dr Francis Lively

AFBI

What is the quality of autumn grass?

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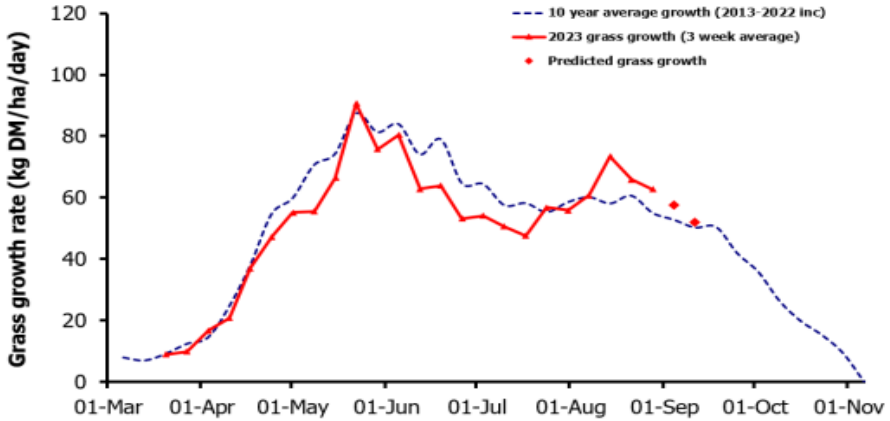
Week Beginning 28th August 2023

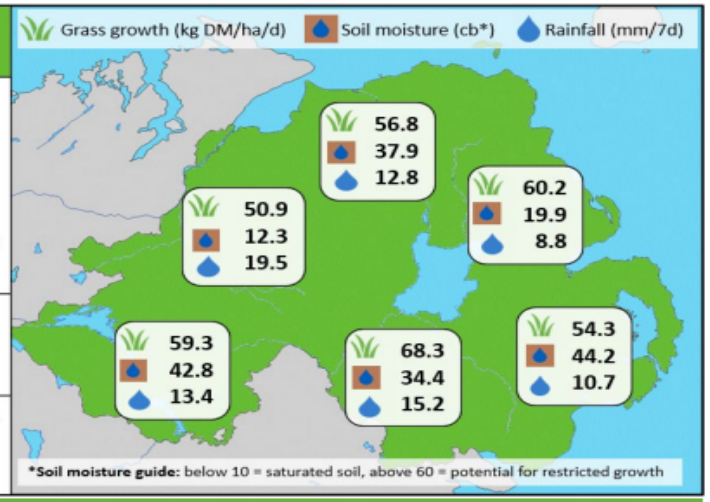


MANAGEMENT NOTES:

- Grass growth is above the LT av. and is set to continue to do so over the next 7 days
- Rotation length should have been increased gradually through Aug to 30 days on 1st Sept, with an AFC between 2,250 and 2,500 kg DM/ha depending on stocking rate, to set the grazing platform up for extending the grazing season into the Autumn.
- If grazing swards with a high clover content, be aware of the risk of bloat and take suitable measures, such as limiting allocations with a strip wire, introduce a fibre source, provide bloat oil through drinking water and avoid moving animals on and off
- Conditions continue to be challenging for grazing and silage harvesting. Use the range of wet weather grazing techniques and limit damage to swards where possible.
- Weather has made weed control this season a difficult task. Target paddocks for weed control now in late Aug, especially paddocks marked for reseeding next year.

Grass Growth (kg DM/ha/day)	
GrassCheck plots#	62.7
Dairy farms*	61.6
Beef & sheep farms*	54.1
Forecast 7 day	57.7
Forecast 14 day	52.0

*On-farm grass growth data supplied by AgriNet
GrassCheck plots receive 270 kg N/ha/year



Value of Grass		Grass Quality	
Dairy – maintenance plus (M+) (kg/cow/day)*	14.1	DM (%)	15.0
Growing animals – daily live weight gain (kg/head/day)**	0.96	CP (% DM)	19.1
		WSC (% DM)	9.7
		ME (MJ/kg DM)	11.1

*M+ calculated assuming: 650kg cow, and 13.5 kg DMI. Maintenance=75 MJ/day, 5.3 MJ/kg milk
**Beef daily gain assuming: 300 kg beef steer, and 6.6 kg DMI. Maintenance=35 MJ/day, 40 MJ/kg gain

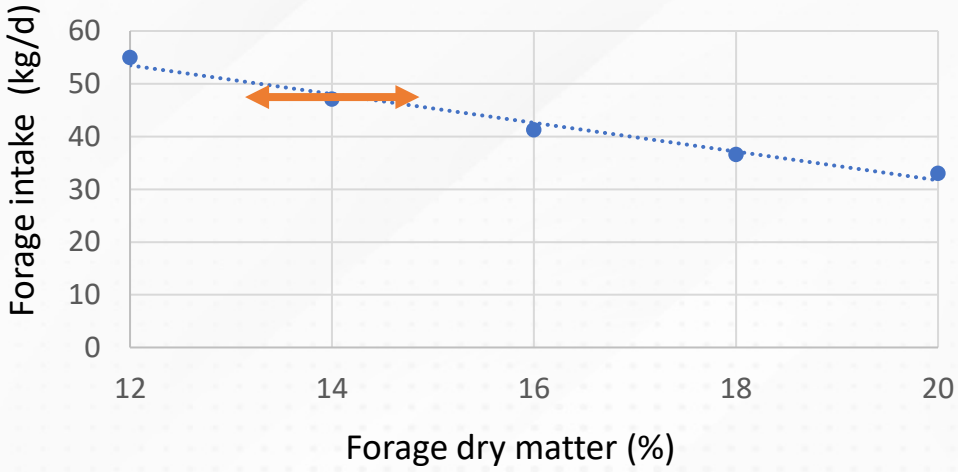
Department of Agriculture, Environment and Rural Affairs | CIEL

@GrassCheck

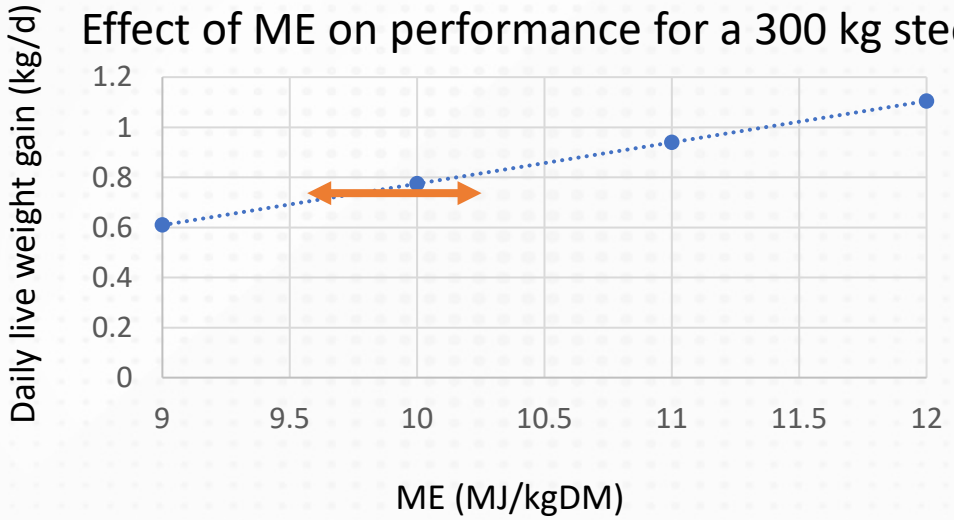
- Autumn grass can be a good nutritious feedstuff
- Previous grazing management will have influenced current quality
- Challenge will be achieving sufficient dry matter intakes

What is the potential of autumn grass?

Fresh forage requirement for a 300 kg steer



Effect of ME on performance for a 300 kg steer



- Forage DM% and energy content drive intake
- Low DM% can make it challenging for the animal to physically consume enough grass
- 0.7 kg/day could be achieved from autumn grass
- Regular movements to clean pasture will help grass utilization, improve intake and reduce poaching

Autumn grazing experience

Extending the grazing season into the autumn:

- reduces silage requirements
- improves sward quality for next grazing
- reduces feed costs

provided good grass covers and that

weather and ground conditions are suitable

	Grazed	Housed
Oct weight (kg) (weaning)	228	228
Jan weight (kg) (late housing)	294	300
March weight (kg) (turnout)	339	339

Is it worth considering feeding cattle at grass in autumn?

Study 1: Short finishing period

	0	2.5	Difference
Live weight (kg)			
Housing	494	532	+38
Slaughter weight	591	615	+24
Carcass weight (kg)	322	334	+12

Study 2: Long finishing period

	0	2.5	Difference
Live weight (kg)			
Housing	517	536	+19
Slaughter weight	671	669	-2
Carcass weight (kg)	369	372	+3

- No benefit in feeding cattle at grass if finishing over a long period of time
- Consider impact on ground conditions
  - Light cattle that will require a long finishing period could be grazed without meal feeding
  - Heavier cattle better to be housed and finished rather than poaching land
- Consider health and safety

What is the impact of feeding lower quality silage?

- Delayed harvesting will most likely have resulted in lower quality silages
- Silage quality will determine livestock intake and performance
- Livestock will have to eat more wet silage to get to the same dry matter intake

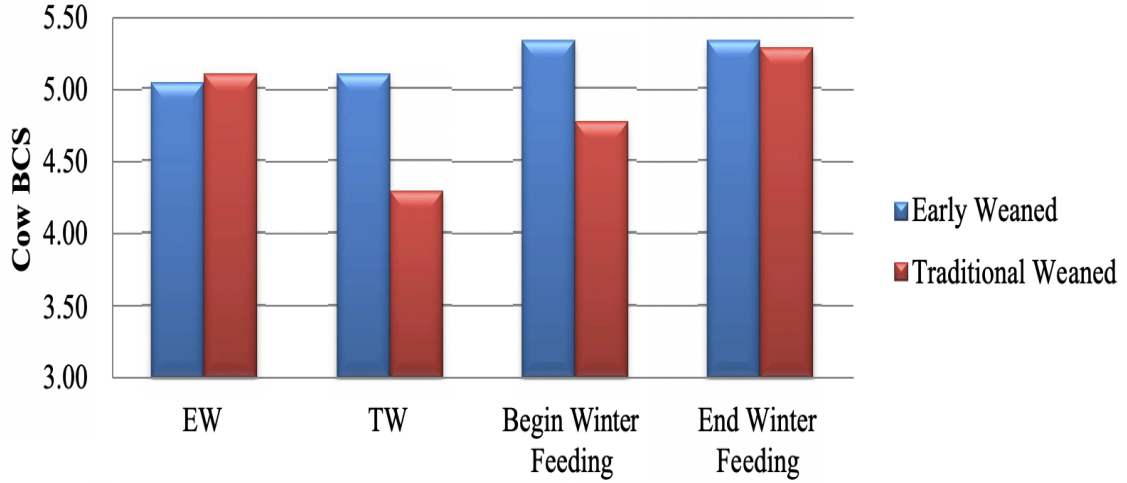
Fresh silage requirement (kg)	20%	30%
300 kg (6 kg DM)	30	20
600 kg (10 kg DM)	50	33

- Livestock performance can be enhanced with additional concentrate input
- Lower quality silage may require concentrate with a higher protein content
- Knowing the quality of your silage is essential to formulate a ration & calculate potential margins

	Silage quality		
	63		71
Concentrate intake (kg/day)	2.5	5.0	2.5
Silage dry matter intake (kg/day)	6.3	5.3	6.9
Live weight gain (kg/day)	0.96	1.22	1.18
Killing-out percentage (%)	54.2	56.0	56.5

Could early weaning of calves help fodder this autumn?

- American study evaluated the effects of weaning at either 4 or 7 months
- Early weaned cows maintained body condition score
- Early weaned cows had a lower feed requirement to achieve target BCS at the next calving



	Traditional wean	Early wean	Difference
Feed intake			
kg/day (DM)	7.6	5.0	-2.61 kg DM /day
kg/ day (fresh @ 25%)	30	20	-10 kg fresh
kg/month	915	610	-305 kg per month
7 month feeding period	6405	4270	-2 tonne per cow

Wiseman et al., 2019

Did early weaning impact on life-time performance of the calf?

- American study evaluated the effects of weaning at either 4 or 7 months
- Early weaned cattle performance was slightly lower than traditional weaned cattle

However,

- Gives an option to wean calves and get them back out to utilize autumn grass
- Value of 2 tonnes of silage vs 17 kg live weight?

Live weight (kg)	Tradition wean	Early wean
4 months	115	107
7 month	238	202
11 month	313	293
14 month	498	476
16 month	596	579

Wiseman et al., 2019

Summary

- Don’t under-estimate the potential value of autumn grass for youngstock
- Cleaning out swards in autumn will improve sward quality for next season
- In wet conditions feeding cattle at pasture has limited value & could increase risk of poaching
- House heavier cattle and commence finishing; and use light stock to graze out pasture
- Use silage analysis to formulate winter feeding rations
- Early weaning could reduce cow winter feed requirement and enable calves to graze longer into the autumn
- Regularly monitor and access impact of grazing

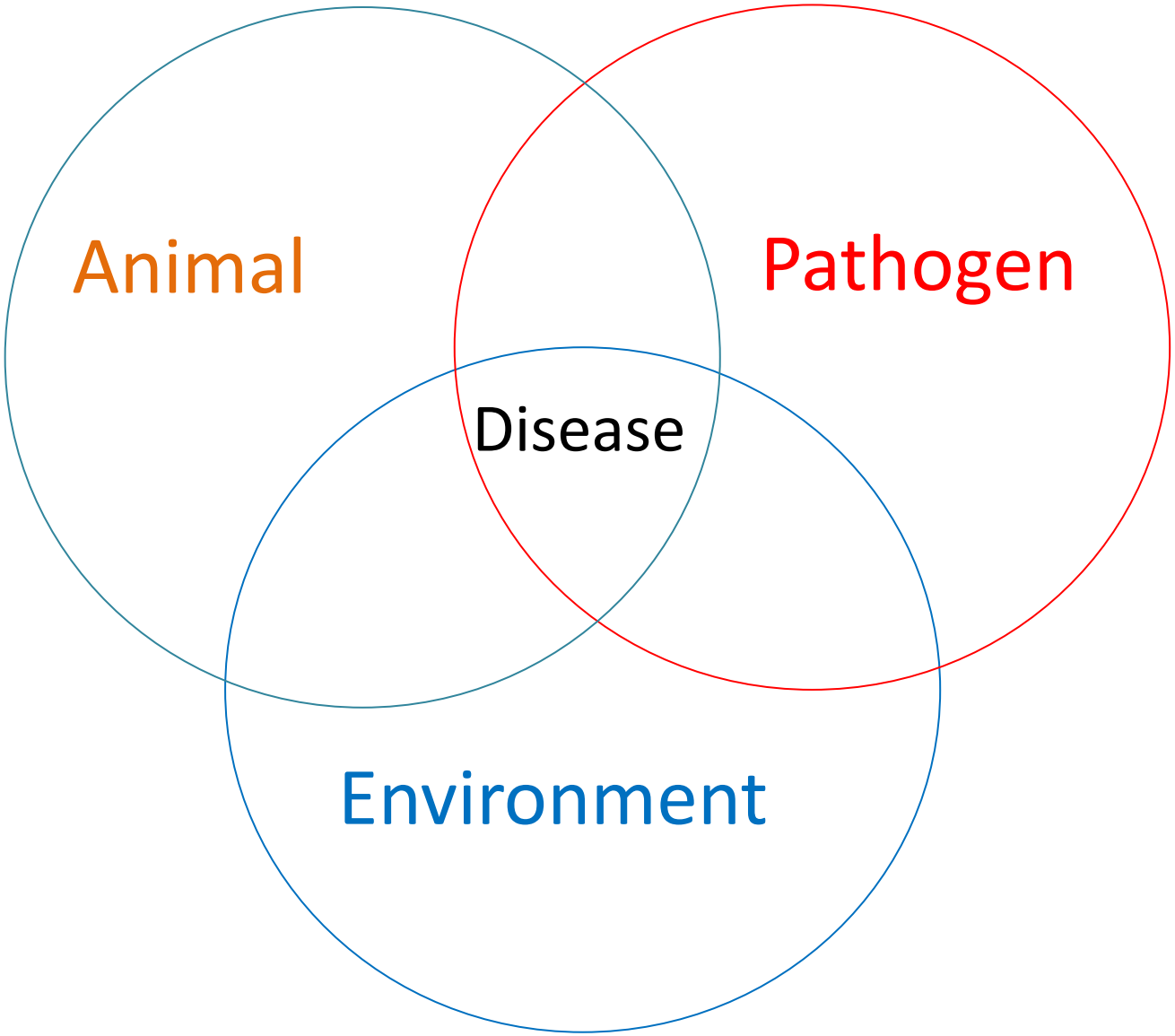
Cattle health Autumn 2023

Problem

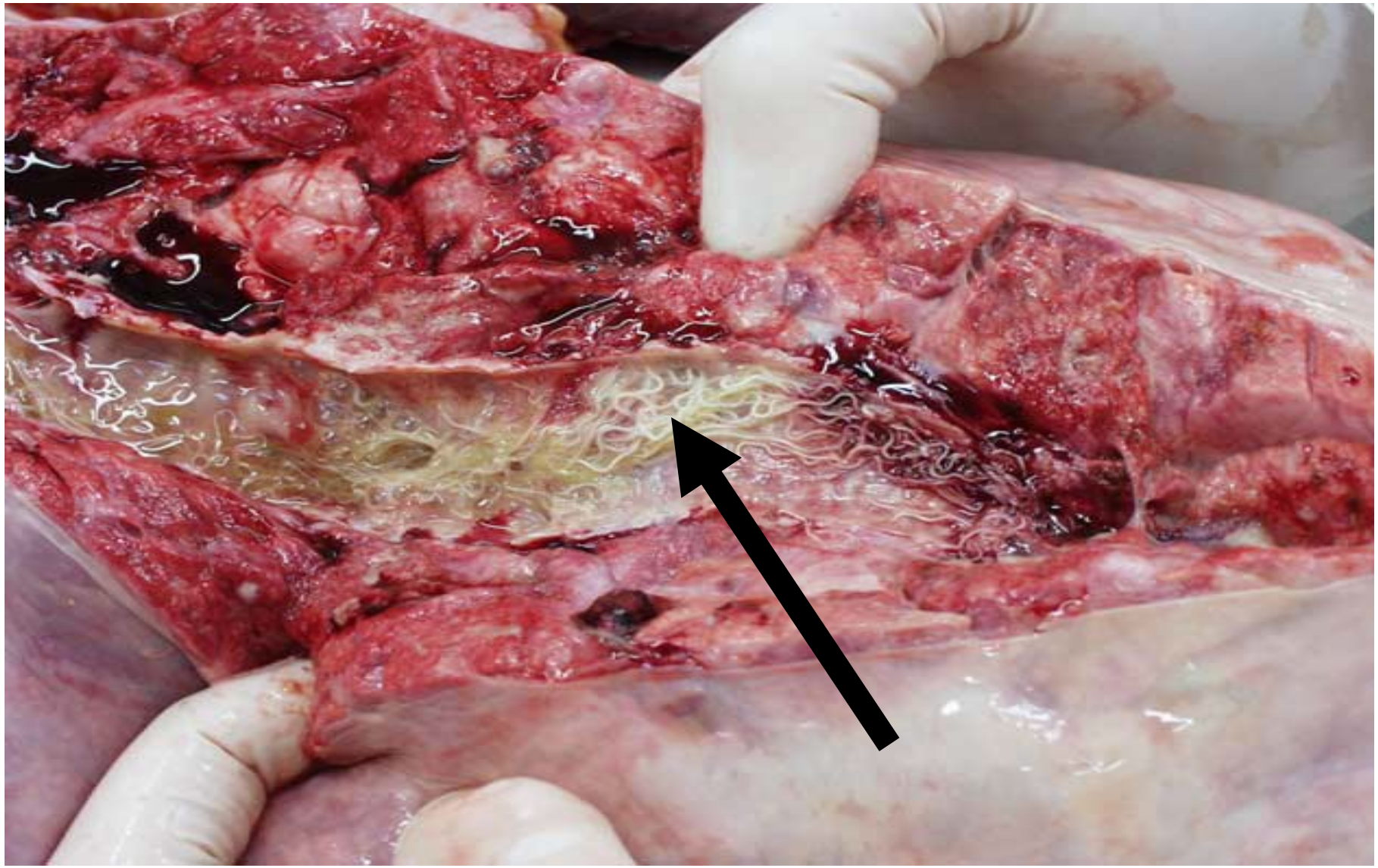
Prevention

Plan

Disease Occurence

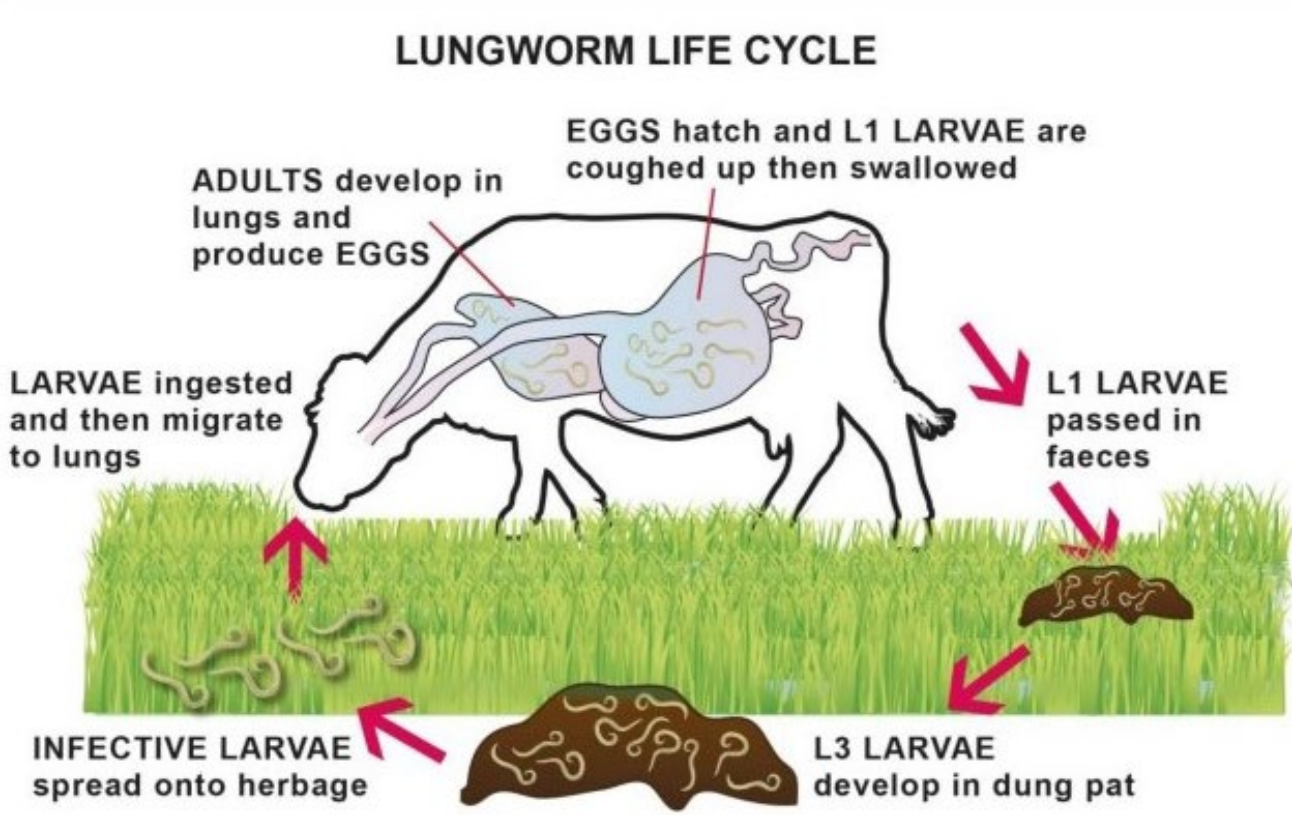


Lung worm – dry June wet July!!



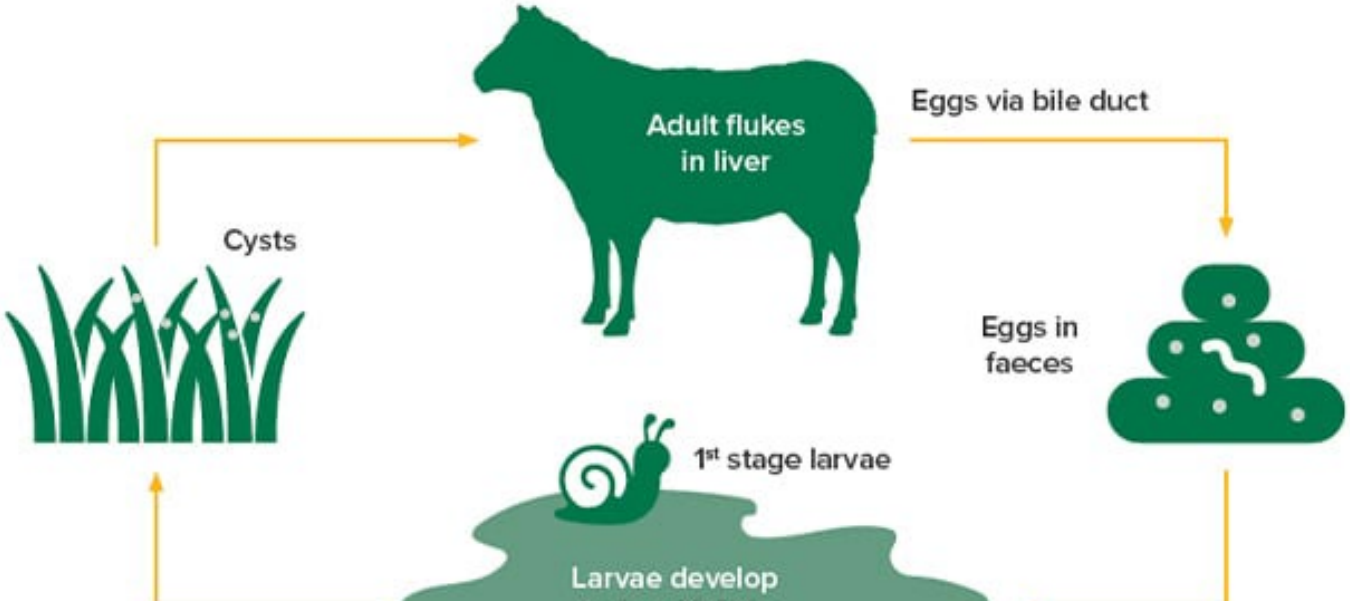
Lungworm lifecycle

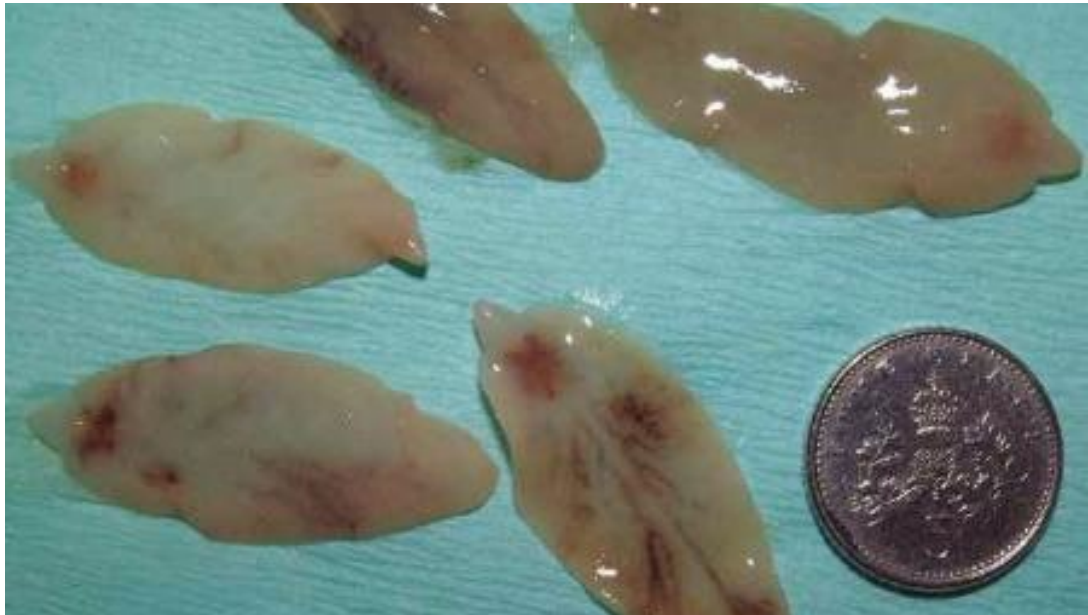
- 4 week cycle – can be quicker
- Adult worms live in airways
- Can grow up to 8cm long
- Can shed hundreds of thousands of larvae within 4 weeks
- It only takes one larvae to infect an animal!



Liver Fluke

- Mild winters / wet summers
- Mud snail required – wet gaps etc
- FEC – eggs from adults
- Resistance
- Product selection for treatment
- Aphis online – postmortem results





Rumen Fluke

- Wet/ flooded land
- Mud snail part of life cycle
- Scour and ill thrift if severe infection
- Drench – Zanil, Levafas diamond

Soil contamination

Clostridial disease

Blackleg – Clost chauvei

- Bacterial spores eaten
- Lie dormant in muscle until muscle damaged
- Cheap vaccine

Listeriosis / meningitis

- Circling
- Facial paralysis
- Tooth eruption
- Prompt treatment
- Tidy silage face - air

Pneumonia

Viruses

PI3, BRSV, IBR, BVD

Bacteria

Mannheimia Haemolytica

Pasteurella Multocida

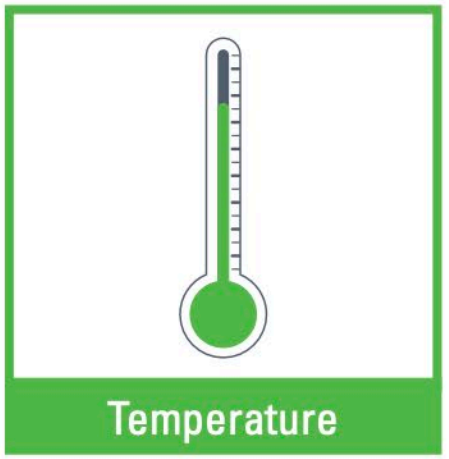
Histophillis Somni

Mycoplasma Bovis

Parasites

Lungworm

Clinical signs of Pneumonia



Decrease challenge

Parasite Control

Stocking density

Multi-source mixing

Pneumonia prevention

Weaning stress

Hygiene

Housing + ventilation

Vaccination

Increase immunity

Pneumonia Prevention

- Housing fast approaching, maybe already
- Make sure you consider:
  - Ventilation
  - Groups
  - Vaccination

Vaccination

- Many different causes of pneumonia
- No silver bullet vaccine
- Farm specific programme
- Intranasal vs injectable
- Right vaccine at right time
- Part of overall management programme

Wormers

- Pour-on, injectable, drench, behind ear, bolus
- Persistance
  - Persist for 10 days eg ivomec
  - Persist for 5 weeks eg Cydectin,Dectomax
  - Persist 3 – 4 months eg Cydectin LA
  - No persistance (one off kill) eg quadrisol, chanaverm

Poor quality/musty straw

Bedding for calving pens

- Hard to bed / keep clean

- Alternatives?

Mycotoxins

- binders

Autumn calvers - Energy requirements for fertility

- Milk
- Condition
- Growth
  - heifers
- Pregnancy

Minerals for fertility

iodine copper, zinc, manganese, selenium, cobalt

Calf scour prevention - Good start essential !!

- Colostrum- 2 litres ASAP
- Calf protection - vaccines
- Freezer bag defrosts in 20 min
- In out in out – hard to manage

Feet and Flies

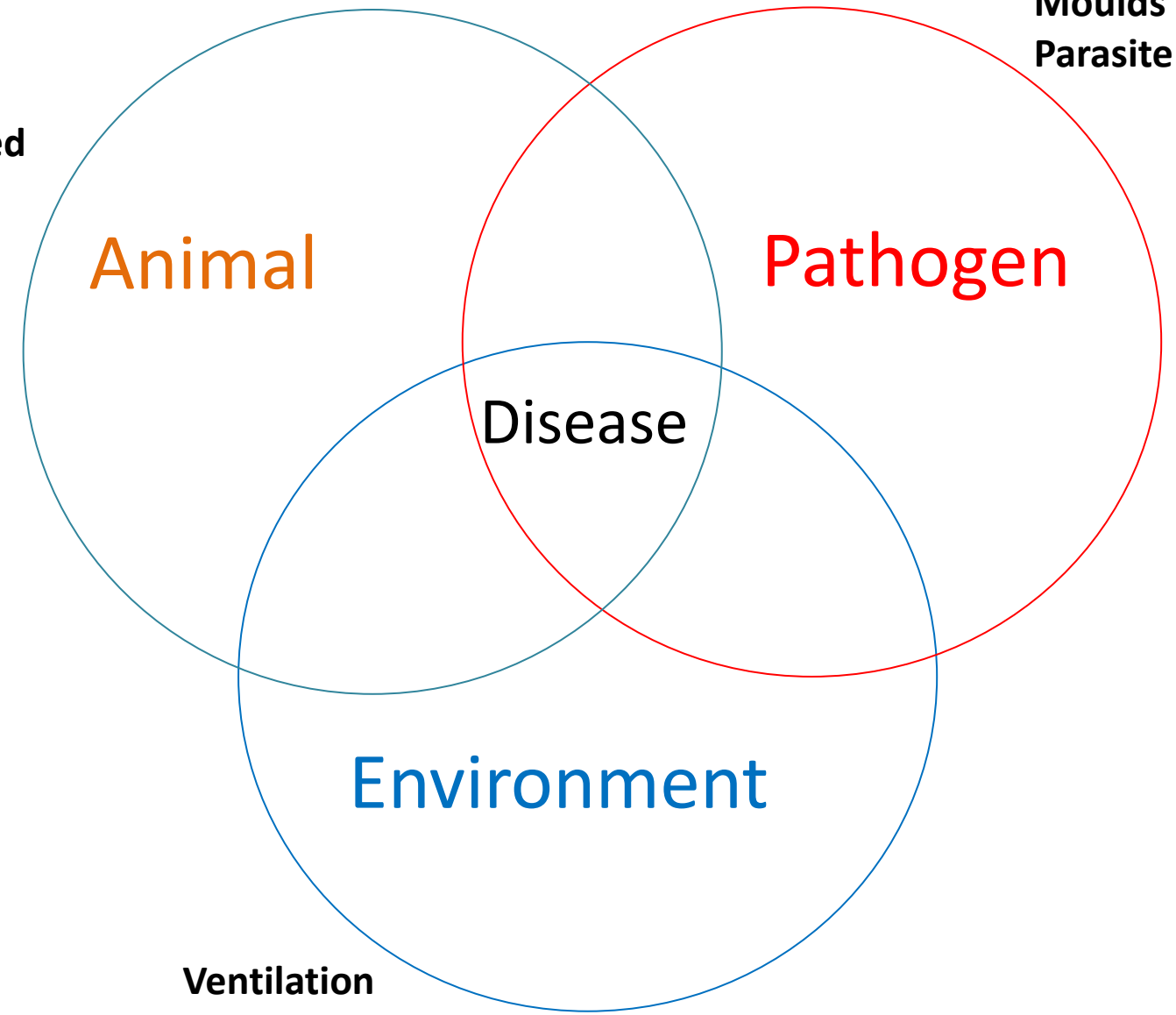
Foul – bacterial, wet conditions-skin damage

Summer mastitis – fly control

Grass tetany

- Magnesium defiency
- Daily intake required
- Lush grass
- Not enough grass
- Wet and cooler
- Sucking a calf
- Supplement feed – meal, silage
- Mg buckets , boluses

Disease Prevention



Plan – local vet , farm specific

- **Not easy**

- cattle in and out – treatment regimes for parasites
- pour-ons and rain showers
- Pneumonia vaccination and timing

Remember

- Dung sample
- Fluke treatment
- Lungworm treatment prehousing
- Ivermectin as last worm treatment – prevent hibernation of gut worm in young cattle

Plan – Vaccines - prevention better than cure

Don’t skimp
Check availability
Storage – transport in cool bag straight to fridge
Site – muscle /skin / nose
Volume – 2 ml, 3 ml, 5 ml
Maximum 2 at a time
If 2 vaccines – one each side (different lymph node)
2 weeks apart

Forthcoming Webinar

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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Ulster Farmers' Union

Join our new series jointly delivered by the Ulster Farmers' Union (UFU), Agri-Food and Biosciences Institute (AFBI) and AgriSearch. These sessions will overview win-win scenarios for farm profitability and the environment

Each session will be held online via zoom
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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Forthcoming Conferences

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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