Getting Winter Ready

Teagasc/AHI Autumn Beef Walk

Proinnsias Creedon's Farm

Barrathanaknock, Co. Cork | 2nd November 2023

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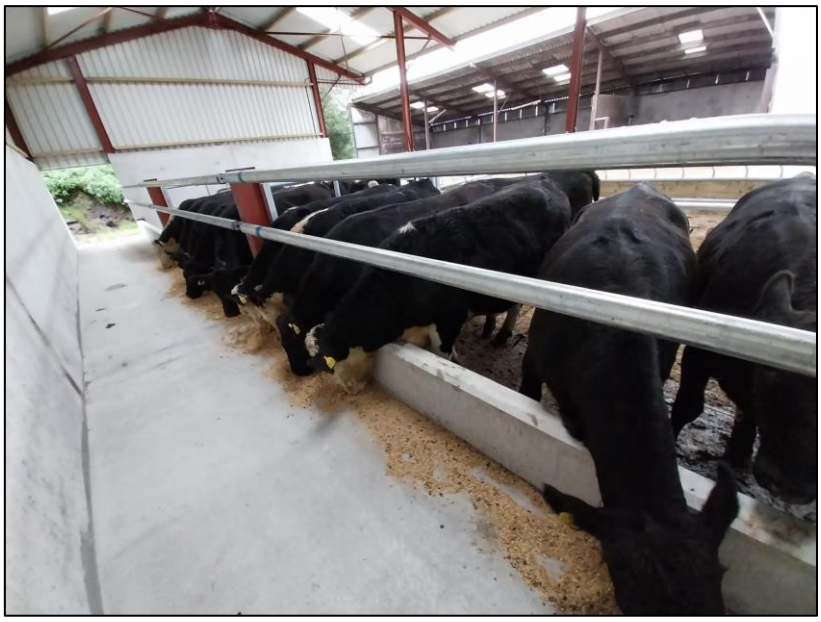
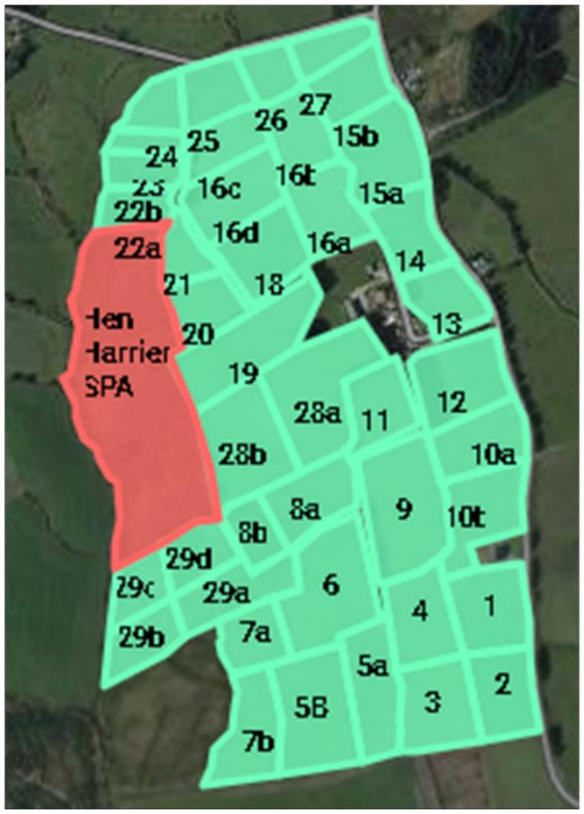


Proinnsias Creedon Introduction



Farm System

- Farming 33.31 ha, all owned
- 1 main block
- Calf & store to beef system
  - 2021: 31 calves & 59 yearlings
  - 2022: 50 calves & 15 yearlings
  - 2023: 55 calves & 14 yearlings
- AAX & HEX Heifers

2023 Performance YTD

- 50 heifers slaughtered
- Average age: 25.6 months
- Carcass weight: 276 kg
- Carcass grade & fat: O=3+

PARASITE TESTS AND RESULTS

WHAT PARASITE TESTING IS AVAILABLE?

Dung samples Blood tests
Factory reports Post-mortem

What makes a good dung sample?
Fresh (warm) dung, tablespoon of dung per animal, sample 10-15 animals, get it to the lab/vet early in the week.

Speak to your vet for optimal testing protocols and timing.

FACTORY REPORTS

Beef HealthCheck Report

TAG	SEX	AGE (mths)	CARCASE (kg)	LIVER SCORE	LUNG SCORE
IE 12 34567 8 0001	E	20	330	1	3
IE 12 34567 8 0002	C	22	360	3 / 5	1
IE 12 34567 8 0003	D	40	400	2	1
IE 12 34567 8 0004	B	44	500	1	1
IE 12 34567 8 0005	E	19	340	1	2
IE 12 34567 8 0006	C	20	350	1	4
IE 12 34567 8 0007	D	56	410	4	1

Beef HealthCheck collects and reports health outcomes to farmers.
Access to reports available on ICBF website (desktop).

What do the scores mean?

Liver score

1 – Normal liver
2 – Liver fluke damage

3 – Live liver fluke
4 – Other damage
5 – Liver abscess

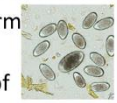
Lung score

1 – Normal lung
2 – Limited pneumonia
3 – Extensive pneumonia
4 – Other damage

WHAT CAN WE TEST ON A DUNG SAMPLE?

GUT AND STOMACH WORMS

Faecal egg count/ worm egg count
Reports the number of eggs per gram of faeces
e.g. 500 epg



Cattle epg

0	200	400	600 ...
Low	Moderate		Severe

To treat or not?
Consider:
- age group
- risk of disease
- history of problems
- weather & time of year
- monitoring

WORMS CAN DEVELOP RESISTANCE TO WORMERS WHICH THEN NO LONGER WORK EFFECTIVELY

Check if your dose is working with a drench test
- Do an egg count before and after dosing.
(7 days later for LV, 14 days later for BZ or ML)
- The egg count should decrease between tests.

LUNGWORM

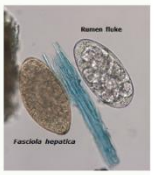
Can be negative during the early stages of disease (animal coughing).
Usually advise treatment if present.

COCCIDIA

Can see oocysts (eggs) that don't cause disease (different species).
If oocyst count is high and animals clinical ill, treatment might be needed.

LIVER AND RUMEN FLUKE

Different test to the egg count – must be requested.
Usually reported as present/absent, if liver fluke is present advise treatment.
Rumen fluke is often present – consider treatment only if other signs
e.g. not thriving.



PARASITE CONTROL AT HOUSING

ANTIPARASITICS

WORMERS

WHITE (1-BZ)	YELLOW (2-LM)	CLEAR (3-ML)

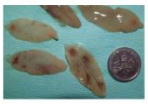
FLUKICIDES

COMBINATION

ECTOPARACIDES

LIVER FLUKE

- Avoid grazing wet areas in autumn.
- Treatment depending on life stage target, takes 8-12 weeks to develop to an adult



Three main types of flukicide:

Those that target adult fluke only	Those that target juveniles from 6-8 weeks	Those that target all stages
✓May need a second treatment over housing	✓Delay treatment to 6 weeks after housing	✓Can give 2 weeks after housing ✓Keep for sheep if possible (resistance is a concern)

RUMEN (STOMACH) FLUKE

- Can cause lack of thrive, treat only if clinical signs
- Only one active ingredient available for treatment, off label use (Oxyclozanide)

MITES AND LICE

- Hairloss, extremely itchy, fail to thrive
- Housing ideal environment (warm and humid)
- Treat all in-contact animals
- May need two treatments due to eggs hatching (treatment doesn't kill eggs)
- Injectable products don't work well on biting lice

STOMACH AND GUT WORMS

- Treat at beginning of housing if needed
- Ostertagia Type II – dormant worm, becomes a problem early spring. Treat with white/clear drench.

LUNGWORM

- Highly unpredictable
- Severe infection can lead to secondary pneumonia

COCCIDIA

- Problem at end of housing into spring/ early summer
- Preventative treatment possible
- Disinfect sheds if previous problem on farm (Kenocox, Interkokask, Neopredisan)

Lungworm

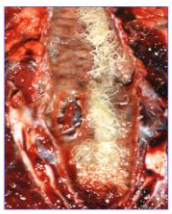
- Straight forward
- No known resistance
- No inhibited larvae to deal with
- Older animals develop immunity
- Pre-housing dose with a mectin
- Lungs will be clean and healed on housing
- If product has enough persistence could use as housing dose.

Ensure to use other classes of drugs during the grazing season to build immunity and avoid resistance

Ivermectins
Cooperia – 14 days
Ostertagi – 21 days
Lungworm – 28 days

Doramectin - dectomax
Cooperia – 21 days
Ostertagi – 35 days
Lungworm – 35 days

Moxidectin -cydectin
Cooperia – 14 days
Ostertagi – 35 days
Lungworm – 42 days



Stomach Worms

Only three classes of Drugs

Class	Common Name	Chemical	Sample products
Benzimidazole	White (1-BZ)	Albendazole Fenbendazole Oxfenbendazole	Albex, Endospec, Tramazole Panacur, Zerofen, Fenben Oxfencare, Parafend,Wormal
Levamisole	Yellow (2–LV)	Levamisole	Levacide, Vermisole
Macrocyclic Lactone	Clear (3-ML)	Ivermectin Doramectin Eprinomectin Moxidectin	Animec, Bimectin, Qualimec Dectomax Eprinex Cydectin

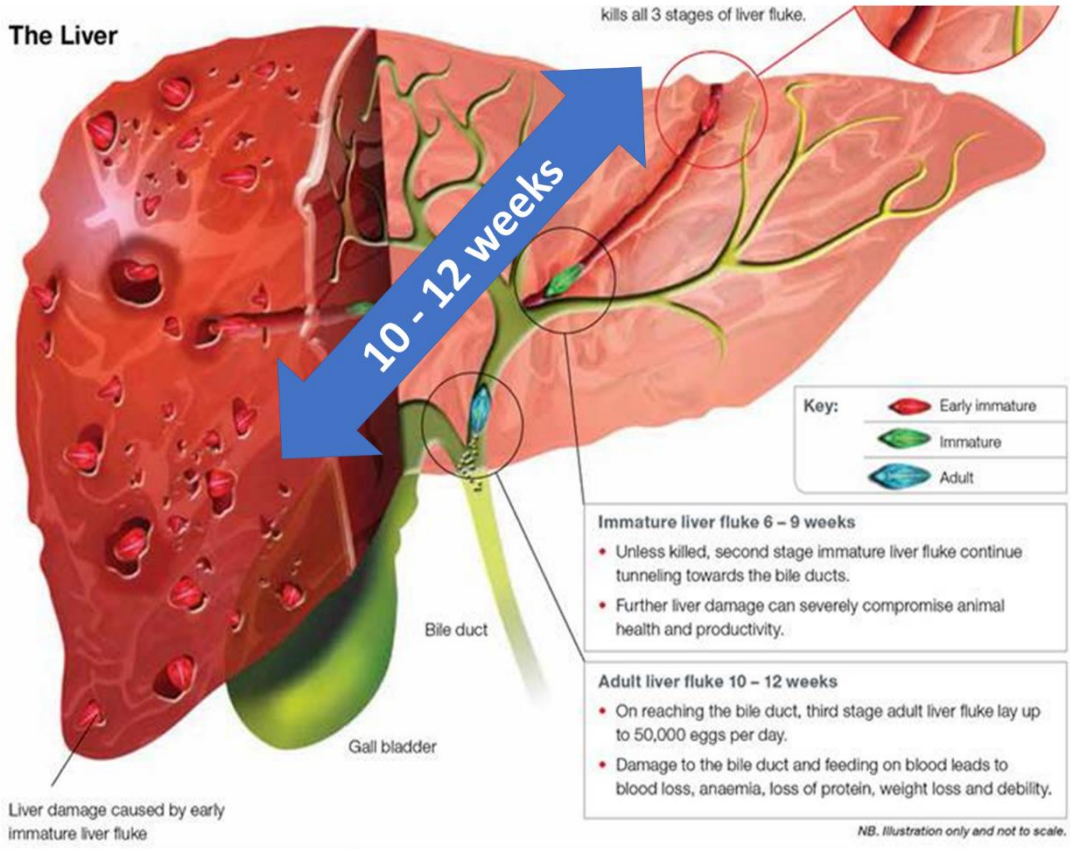
Resistance

Anthelmintic class	No. farms tested	No. farms with resistance	Prevalence of resistance
Benzimidazole (1-BZ)	17	12	71%
Levamisole (2-LV)	12	3	25%
Macrocyclic lactone (3-ML; Ivermectin)	17	17	100%
Macrocyclic lactone (3-ML; Moxidectin)	12	9	75%

Drench test Faecal Sample

Inhibited Ostertagi larvae – Levamisole not effective

LIVER FLUKE CONTROL



Picture courtesy of Elanco

Images of mud snail source: Farm Advisory Service

Assess Threat

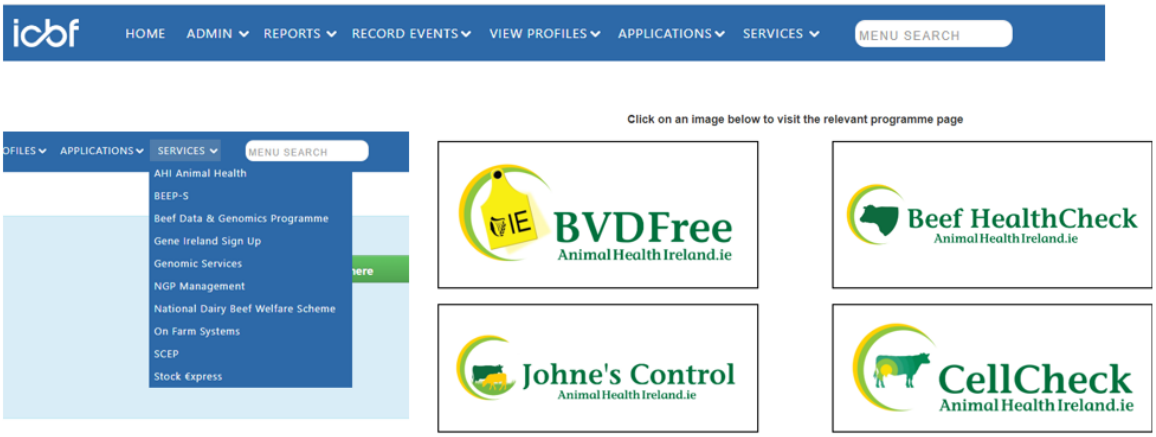
Pick right product

Give at right time

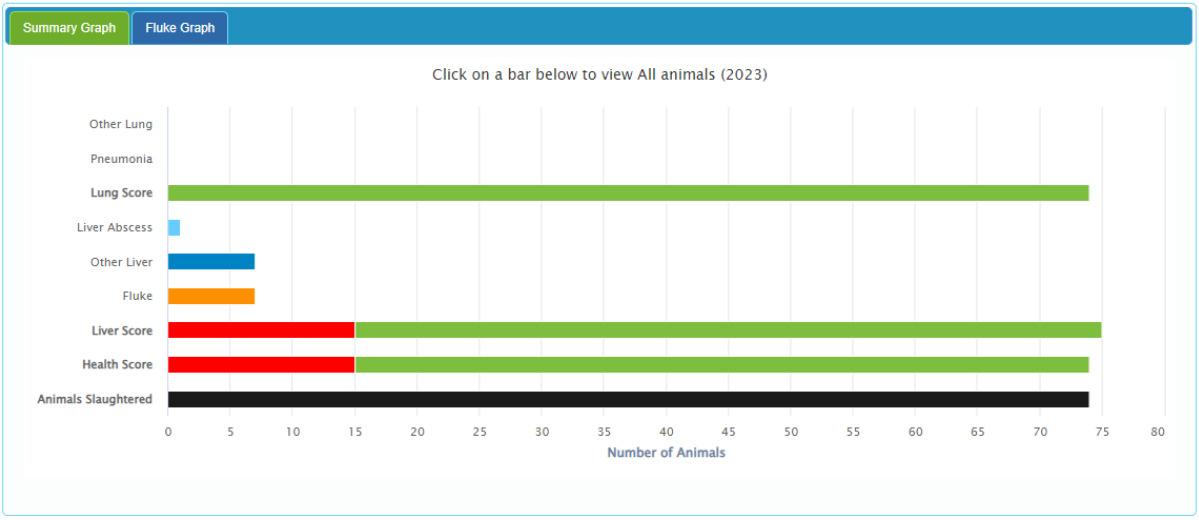
Liver Fluke Control

Active ingredient	Sample product	Dose after cattle housed		Admin route	Withdrawal
Triclabendazole	Endofluke 10% Fasinex 240 Tribex 10% Cydecdectin Triclamox	2 weeks 2 weeks 6 weeks	Early immature, immature, adult fluke	Oral drench Oral drench Oral drench Pour on	56 days 56 days 56 days 143 days
Closantel	Closamectin inj Closamectin Pour-on Solantel Flukiver 5% bovis	7 weeks 7 weeks 7 weeks 8 weeks	Immature, adult fluke	Injection Pour-on Pour-on Injection	49 days 58 days (was 28 days) 63 days 77 days
Rafoxanide	Ridafluke	7 weeks	Immature, Adult Fluke	Oral Drench	60 days
Nitroxynil	Trodax	8 weeks	Immature, adult fluke	Injection	60 days
Albendazole	Albex 10% Endospec 10%	10 -12 weeks 10 -12weeks	Adult Fluke	Oral drench Oral drench	14 days 14 days
Clorsulon	Bi mectin plus Ivomec super	10 -12weeks 10 -12 weeks	Adult Fluke	Injection Injection	66 days 66 days
Oxyclozanide	Levafas Diamond Zanil	10- 12 weeks 10 -12 weeks	Adult Fluke	Oral Drench Oral Drench	28 days 13 days
	Rumenil	10-12 weeks	Adult fluke	Oral drench	13 days

Example: Beef HealthCheck reports on ICBF



imal Details				Liver Results				Lung Results		
	Date Of Birth	Age In Months	Home Bred	Normal Liver	Fluke	Other Liver	Liver Abscess	Normal Lung	Pneumonia	Other Lung
31725	12-JAN-10	120	Y		Fluke Damaged			Normal		
72669	20-JAN-15	60	Y		Live Fluke			Normal		
52016	19-MAR-11	106	Y		Fluke Damaged			Normal		
63259	14-JAN-18	26	Y			Other		Normal		
83483	27-JAN-19	15	Y	Normal			Abscess	Normal		
11418	09-APR-07	161	Y		Fluke Damaged			Normal		
93518	19-MAR-19	18	Y		Fluke Damaged			Normal		
43513	28-FEB-19	19	Y			Other		Normal		
33198	06-FEB-18	33	Y			Other		Normal		



Lice

Extremely itchy – does affect thrive

Sucking lice - Burrow into skin and feed on blood
Can use injection or pour - on

Biting Lice - Feed on skin and hair

Need to use Pour - On

Parasite	Animal Age	Treatment
Biting lice Feed on the skin, hair and sloughed skin cells of the animal.	All ages	Macrocyclic Lactones **pour on** Pyrethroids – spot on, endospec **Does not kill eggs**
Sucking lice Feed on animals blood	Mainly young, first grazing season	Macrocyclic Lactones Pyrethroids **Does not kill eggs**
Mange mites	All ages	Macrocyclic Lactones Pyrethroids **Does not kill eggs**

Life cycle 2-3 weeks

House all animals before treatment

Treat whole group Do not introduce new animals

Treat early – may need to treat twice

Drench testing to check if an anthelmintic is effective in cattle

A drench test involves doing a faecal egg count before and after dosing to check if the wormer is effective. Consult your vet or advisor to assist in interpreting the results and discussing control measures. A more detailed faecal egg count reduction test on individual samples may be needed.

1. Select 10-15 animals at random
2. Place a mark or record tag numbers to identify these animals
3. Collect individual dung samples and send to the lab for a pooled faecal egg count test, the lab will mix the samples together for one test and result (individual testing will give more accurate results but a pooled test is more cost effective)
    - Hold animals in a clean pen where possible and allow 1-2 hours for the animals to defecate. Alternately, to obtain freshly fallen samples, approaching a group of resting animals will often encourage them to pass faeces as they walk away. Dung must be fresh (warm). Eggs in older dung may have hatched or dried out giving inaccurate results.
4. Dose animals with the chosen wormer on the same day or within 1-2 days of the initial sample

    a. Calibrate dosing equipment, measure that the equipment is giving the expected volume
    b. Dose according to the heaviest animal in a similar sized group
    c. Ensure all animals are dosed correctly following the manufacturer's instructions

Retest the same animals by faecal sampling as above 10-14 days after dosing
Results will be given in eggs per gram (epg) and the reduction in egg count is compared from one sample to the next.

Calculate the percentage reduction as follows:

$$\frac{(\text{Egg count Test1} - \text{Egg count Test2}) \times 100}{\text{Egg count Test1}}$$

- Greater than 95% reduction = product working effectively
- Less than 95% reduction = product not working effectively

The initial egg count would need to be in excess of 200 epg to draw conclusions regarding product efficacy, if the first count is lower repeat at the next dosing interval rather than doing a second test.

Winter Housing

Importance

- Welfare standards
- Animal performance
- Health & Cleanliness
- Lying space
- Access to feed/water

Recommended space allowance (m^2/animal)

Animal type	Feed Space (mm)	Slatted floors (m2)	Straw bedded (m2)
Suckler cows	500-700	2.5 - 3.0	5.0
Cattle 220 - 300 kg	300-400	1.2 - 1.5	1.8 - 3.0
Cattle 310 - 450 kg	400-600	1.5 - 2.0	2.4 - 3.0
Finishing cattle* 500 - 750 kg	600-700	2.2 - 2.7	4.0

Teagasc Research shows that 2 m^2 is not sufficient space for finishing animals

Increasing space allowance above 3.0 m^2 on slats had no effect on animal intake or carcass weight

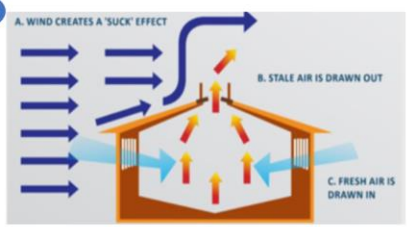
Targets

- Fresh air is an excellent disinfectant
- Cobwebs, dirty sheeting and lights are signs of inadequate ventilation
- Inlet: 0.1m^2/animal
- Outlet: 0.2m^2/animal

Options if ventilation is inadequate

Avoid Draughts

- Roof pitch 15°
- Clean vented sheeting
- Angle out side sheeting
- Replace side sheeting with space boarding
- Raise ridge cap
- Raise sheets in roof



Space boarding
*150mm boards + 50mm gaps

Yorkshire boarding
Two rows separated by 50mm (40mm if exposed)
*150mm boards and 50mm gaps

*Note S101:75mm laths X 25mm thick + 25mm space

Silage Quality

SILAGE TARGET?

- DMD: >72
- Crude protein (% DM): >13.5
- Dry matter: 25-30%
- pH: 3.8 - 4.5
- UFV/UFL(unit/kg DM): >0.89

SILAGE RESULT?

- DMD: 73.4%
- Crude protein (% DM) 14%
- Dry matter: 37%
- pH: 4.52
- UFV/UFL (unit/kg DM): ___

0.84 UFV / 0.87 UFL

KEY MESSAGES

- Hitting target weights = **easier** finishing and increases slaughter options
- Testing silage + correcting ration = improved performance
- **WEIGH!!**

Concentrate supplementation and silage quality			
Silage quality	66 DMD	70 DMD	74 DMD
Finishing cattle target - 1kg ADG	7kg	5.5kg	4kg
Cost over 100 days at €340/t concentrate	€238	€187	€136
Store cattle target 0.6kg ADG	2kg	1.25kg	0.5kg
Cost over 100 days at €340/t concentrate	€68	€42	€17
Weanlings target 0.6kg ADG	3kg	2kg	1kg
Cost over 100 days at €340/t concentrate	€102	€68	€34

Less Labour

SPRING CALVERS IN GOOD CONIDTION

72 DMD Feed restricted access silage (80% o requirements)
65 DMD Feed silage ad lib
60 DMD Feed silage ad lib + 0.5-1.0 kg meals
55 DMD Feed silage ad lib + 1.0 kg meals

*Feeding 1.0 extra for thing cows

AUTUMN CALVING SUCKLER COWS

Silage DMD %	72	66	60	55
Cows in Good Condition				
Pre-mating	1.8	2.5	3.0	3.5
Post-mating	0-0.5	1-1.5	1.5-2.0	2-2.5
Cows in Poor Condition				
Pre-mating	1.8	2.5	3.0	3.5
Post-mating	1.8	2.5	3.0	3.5

Silage DMD %	70	65	60	55
Weanlings (ADG 0.6 kg)	1-1.5	1.5-2.0	2.5-3.0	3-3.5
Store Cattle	0-1.0	1.5-2.0	2.0-2.5	2.5-3.0
Finishing (ADG 1 kg / day)	5-5.5	7-7.5	Ad lib	Ad Lib

	Protein Level in the Silage			
	8%	10%	12%	14%
Weanlings				
2 kg	20%	18%	16%	14%
3 kg	18%	16%	14%	12%
Finishing cattle				
5 kg	14	12%	11%	10%
6 kg	13	12%	11%	10%
7 kg	12	12%	11%	10%

Fodder Budgeting

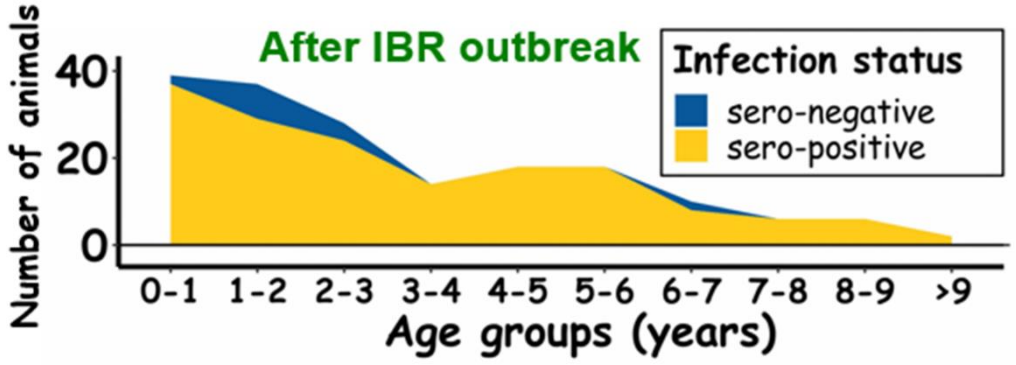
Fodder Required				
	A	B	C	D
Animal Type	No. stock for winter	No. months (Including a 4-6 week reserve)	Tonnes of fresh weight of silage required per month	Tonnes of silage needed (AxBxC)
Suckler cows			1.4	
0-1 yr old			0.7	
1-2 yr old			1.3	
2+ yr old			1.3	
Ewes			0.15	
Total tonnes needed				_____ tonnes
Total bales needed (tonnes multiplied by 1.25)				_____ bales

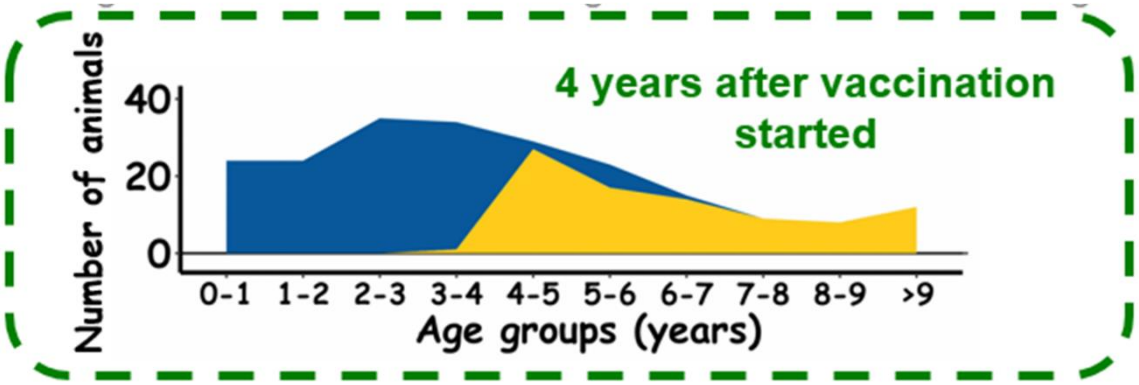
- Length (m) x width (m) x height (m) divided by 1.4 (to allow for a silage pit at 22% dry matter)
- Allow 700kg fresh weight per bale when completing calculations

IBR

What can I do against it?

Vaccination stops virus circulation





Test and know your status – vaccination does work!

Weanling Vaccination

RSV + Pi3		RSV + Pi3 and Mannheimia haemolytica	
Rispoval 2	Rispoval RS + Pi3 Bovillis Intranasal RSP Bovalto Respi IN	Bovillis Bovipast Bovalto Respi 3 Bovalto Respi 4 (BVD)	
Intramuscular Two shots (4 weeks apart) 6 month coverage	Intranasal – one shot 3 month coverage	Intramuscular Two shots (4 weeks apart) 6 month coverage	OR Booster

IBR				
Bovilis IBR Marker Live	IBR Only	Live	IN+IM	One shot, 3, 9 and 21 months.
Rispoval IBR Marker Live	IBR Only	Live	IN +IM	One shot at 3 month, repeat every 6 months for protection (see note for vaccination programmes)
Bovilis IBR Marker inactivated	IBR Only	Inactivated (Dead)	IM	From 3 months old. Two shots 3-5 week apart. (see note for vaccination programmes)
Rispoval IBR Marker inactivated	IBR Only	Inactivated (Dead)	SC	From 3 months old. Two shots 3-5 week apart. (see note for vaccination programmes)

Bovine Respiratory Disease - vaccinations and programmes (July 2021)

Vaccine Name	Protects against				Live /inactivated(dead)	Route of Admin	No. of shot in Primary Course	Booster
	RSV	Pi3	Mannhaemia Haemolytica	BVD				
Bovilis Bovipast RSP	+	+	+	-	Inactivated (Dead)	SC	Two	6 months or ahead of next risk period.
*Bovalto Respi 3	+	+	+	-	Inactivated (dead)	SC	Two	6 months or ahead of next risk period
Bovilis Intranasal RSP	+	+	-	-	Live	IN	one	12 weeks
Rispoval RS+Pi3	+	+	-	-	Live	IN	one	12 weeks
Bovalto Respi IN	+	+	-	-	Live	IN	One	12 weeks
Rispoval 2	+	+	-	-	Live	IM	Two	6 months
*Bovalto Respi 4	+	+	+	+	Inactivated (Dead)	SC	Two	6 months or ahead of next risk period
IN- Intranasal. SC – subcutaneous. IM – Intramuscular								
Bovilis IBR Marker Live	IBR Only				Live	IN+IM	One shot, 3, 9 and 21 months.	
Rispoval IBR Marker Live	IBR Only				Live	IN +IM	One shot at 3 month, repeat every 6 months for protection (see note for vaccination programmes)	
Bovilis IBR Marker inactivated	IBR Only				Inactivated (Dead)	IM	From 3 months old. Two shots 3-5 week apart. (see note for vaccination programmes)	
Rispoval IBR Marker inactivated	IBR Only				Inactivated (Dead)	SC	From 3 months old. Two shots 3-5 week apart. (see note for vaccination programmes)	

If there is a high prevalence of IBR on the farm 1) calves may be given an intranasal IBR vaccine (live) from 2 weeks, followed by a live vaccine at 3 months. Then they fall into vaccination programme.
2) Alternatively vaccinate cows a month before calving to reduce the disease pressure and vaccinate calves at 3 months

Zoetis IBR Programmes	MSD IBR Programmes
1. Rispoval IBR-Marker inactivated (subcutaneously) Primary course @ 3 month; 2 doses 3-5 weeks apart Booster: 1 dose every 6 months **2.Rispoval IBR-Marker live** (intramuscularly) Primary course @ 3 months: 1 dose Booster: 1 dose every 6 months **3.Rispoval IBR - 12 month vaccination programme (3,9,21 month)** Primary course @ 3 months: 1 dose Rispoval IBR-Marker live (intramuscularly) 6 month Booster: 1 dose Rispoval IBR-Marker inactivated (subcutaneously) Annual booster: 1 dose Rispoval IBR-Marker inactivated (subcutaneously) < 12 months	**1. Bovillis IBR-Marker inactivated** (intramuscularly) Primary course @ 3 month; 2 doses 4 weeks apart Booster: 1 dose every 6 months **2.Bovillis IBR-Marker live** (intramuscularly) Primary course @ 3 months: 1 dose Booster: 1 dose every 6 months **3.Bovillis IBR - 12 month vaccination programme (3,9,21 month)** Primary course @ 3 months: 1 dose Bovillis IBR-Marker live (intramuscularly) 6 month Booster: 1 dose Bovillis IBR-Marker live (intramuscularly) Annual booster: 1 dose Bovillis IBR-Marker live (intramuscularly) < 12 months

Note: This is a summary correct at the time of writing. Always check with your vet before introducing a vaccination programme to your farm.

***For active immunisation of cattle in the absence of maternally derived antibodies**

Notes Page

Targeted Advisory Service on Animal Health (TASAH), a Parasite Control TASAH consult, between trained veterinary practitioners and their clients

Google – AHI TASAH programme – closing date October 31st this year

AHI have a list of all the products available to control parasites – just google AHI Listing of products available in Ireland for parasite control in cattle 2023

H&S Winter Checks on Drystock Farms

Machinery

- Service tractor & other machinery
- Safety guards on all pto's and equipment
- Clean & tidy vehicles (windows - visibility and cab - safety while driving)
- Organised & tidy tool shed

Housing

- Check sheds are in good repair
- Gates, doors & feed barriers are secure & opening & closing properly
- Electrics working and safe
- Adequate ventilation in animal housing especially where slatted tanks

Yard

- Good lighting
- Clear vehicle & pedestrian pathways
- Tidy yards
- Pest control
- Sanitation facilities
- Locked medicine cabinet & chemical store

Think

Plan

Do

Risk Assessment

Emergency nos.

Eircode