Teagasc Green Acres Calf to Beef Fact Sheet

Weanling health and nutrition

The primary aim of the winter housing period on calf to beef farms is to ensure weanlings are primed to perform at grass next spring. To achieve this, an average daily gain (ADG) of 0.6kg is required and, for this to occur, health and nutrition must be prioritised.

Treating parasites and other considerations

- Housing provides an opportunity to control both internal and external parasites in cattle.
- Stomach worms, lung worm, liver fluke and rumen fluke can only be picked up at grass; if cattle are treated while housed, they will not be re-infected prior to turnout.
- Parasitic treatments at housing or over the winter help avoid negative impacts such as disease, poor growth or sub-standard performance.
- Lice and mange outbreaks are observed most during the housing period and it's an opportune time to treat such infestations.
- An animal health protocol is recommended to reduce the possibility of disease onset. RSV, PI3, Mannheimia (Pasteurella) haemolytica and IBR are common causes of respiratory diseases in Ireland.

Dosing strategy

- When dosing, know what actives/classes were previously used to help avoid resistance and what stages of the parasite they control.
- Dose only when needed; use faecal egg count results or animal performance to verify your decision.
- Treatment may be required on farms with a history of liver fluke or where faecal egg counts have confirmed its presence; be aware that a lot of products will only control adult liver fluke.
- Understand the control options for the various stages (early immature, immature, adult) of liver fluke; failing to control immature fluke at housing may lead to the development of mature fluke later in the winter and further treatment may be required.
- Use the recommended rates; don't under dose animals and administer the product in the correct way.
- If unsure, seek veterinary advice on the product/class best suited to your herd and the treatment methods available.

Table 1: Treatment options (actives) and effects of the main parasites affecting cattle at housing

Parasite	Effect	Treatment (actives)	
Stomach Worms	Poor performance and reduced ADG Associated with appetite suppression Heavily infected cattle may experience	• Benzimidazoles (white) • Endectocides (e.g. Avermectins) (clear) • Levamisoles (yellow) (only effective against adult stomach worms)	
Lungworm	Hoose Increased risk of pneumonia Parasitic bronchitis in previously naïve cattle	• Benzimidazoles • Endectocides • Levamisoles	
Liver Fluke	Poor performance and reduce ADG Poor appetite Anaemia	• Albendazole* • Clorsulon* • Closantel** • Nitroxynil**	• Oxyclozanide* • Rafoxanide** • Tricabenazole***
Chewing Lice and Mange	Poor coat Scratching Poor growth	• Endectocides • Pyrethroids • Amitraz	
Sucking Lice	Anaemia Poor growth Scratching	• Endectocides • Pyrethroids	

*Mature liver fluke (10 weeks) controlled; **Immature and mature liver fluke controlled; ***early immature (2 weeks), immature (6 weeks) and mature (10 weeks) liver fluke controlled.

Nutrition

- A weanling's demand for energy, protein, fibre, minerals and other elements must be met to ensure an ADG of 0.6kg is achieved over the housing period.
- Offering poor-quality diets – lacking in energy or protein – will result in reduced weight gains and the potential stunting of dairy-beef weanlings.
- Silage should be of excellent quality; significant savings can be achieved by producing high dry matter digestibility (DMD) silage.

Balancing silage quality

- The ability of silage to provide sufficient energy to dairy-beef weanlings is measured through its ME (metabolisable energy) and DMD.
- Silage testing is required to evaluate its feed value and to formulate winter diets for weanlings.
- Visual assessment of silage will not provide accurate details on DMD, protein content, dry matter etc.
- Where silage quality is insufficient, supplementary concentrate feeding will be required to ensure ADG targets are achieved.
- Offering only poor-quality silage diets will have a negative impact on housing liveweight gain and the overall lifetime performance of the dairy-beef stock.

Table 2: Average daily gains from different silage qualities and meal supplementation requirements

Silage quality (DMD)	ADG on silage alone (kg/day)	Meal needed (kg/day) for 0.6kg ADG	Meal feeding cost over 120 days (€/head at €280/t ration)
75	+0.5	0.5	17
70	+0.35	1.5	50
65	+0.2	2	67
60	0	3	100
55	-0.2	3.5	118

Feeding a supplementary concentrate:

- Concentrates should be medium to high in energy (0.90-0.96UFL).
- 16% crude protein or higher if silages are low in protein.
- Fortified with vitamins and minerals.
- Palatable, fresh smelling and free of dust.
- Front loaded to the first half of the housing period to maximise compensatory growth post turnout.
- Fresh, clean drinking water needs to be available at all times.

Space requirements

- Careful attention should be paid to the size of the shed available, as overcrowding can lead to a significant reduction in animal performance. Don't overstock sheds and ensure ventilation is sufficient. The two space requirements that need consideration are floor space and feeding space (Table 3).

Table 3: Floor space and feeding space requirements

Floor space requirements		
	Slatted housing	**Straw bedded housing**
Cattle >275kg	2 – 2.5 m2/animal	4m2/animal
Cattle <275kg	1.2 – 1.5m2/animal	2.4 – 3m2/animal
Feeding space requirements		
Ad-lib roughage	225 – 300 mm/head	
Restricted roughage	400 – 500 mm/head	
Concentrate supplementation	400 – 500 mm/head	

More information on the Teagasc Green Acres Programme can be found at Teagasc.ie and on AgriLand.ie.

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