

UNDER 16 MONTH BULL BEEF

(DAIRY CALF TO BEEF)

1. SYSTEM DESCRIPTION

Production of young bulls from spring born Holstein-Friesian calves which are slaughtered under 16 months of age. Calves graze for one season and are then finished on high levels of *ad-lib* concentrate feeding.

2. TYPICAL LIVEWEIGHTS AT DIFFERENT STAGES OF PRODUCTION

STAGE OF PRODUCTION	LIVEWEIGHT (KG)	AVERAGE DAILY GAIN (KG/DAY)
Weaned Calf Weight	100	0.70
Housing (1st winter)	250	0.85
Slaughter	520	1.30
Carcase Weight (kg)	260-280	

3. MANAGEMENT GUIDELINES

- This system suits earlier born Holstein Friesian bull calves that are at least 100kg liveweight when weaned at 10 weeks of age.
- Later spring born bulls are not suited to this system as they are too light at housing and need an extended winter finishing period.
- Excellent grassland management while calves are grazing is necessary if the housing weight of 250 kg is to be achieved. A proper parasite control programme needs to be in place throughout the grazing season.
- Calves will need to be supplemented with up to 2 kg of meal per head per day while at grass if the targets are to be consistently met.
- Calves not reaching at least 220 kg liveweight at housing should be finished in an alternative beef finishing system.
- At housing, weanlings are built up over a three week period to *ad-lib* concentrates and fed 1.0 kg of roughage dry matter per head per day (either straw or silage). Bulls will consume 1.8 tonnes of concentrate per head during the finishing period.
- Good housing facilities are required with adequate lying space, clean drinking water and good ventilation.

4. INPUTS REQUIRED

Concentrates	1.9t DM or 2.2t fresh weight
Grazed Grass	0.4t DM
Silage	0.25t DM or 1.25t fresh weight
Stocking Rate	4.7 animals/ha at 170kg organic N per ha

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5. ECONOMICS

		€
a. Weaned Calf Purchase Value	90 kg	
b. Carcase Value	270 kg	
c. Sales – Purchases (B – A)		
Variable Costs per Head*		
Grass	0.4 tonnes DM	€16
Concentrates	2.2 tonnes	
Silage	1.25 tonnes	€38
Veterinary	-	€35
Transport & Levies	-	€40
d. Total Variable Costs		
Gross Margin per Head (C – D) **		

* Variable costs per head do not include interest or mortality costs.

** Subtract estimated fixed costs per head to calculate net margin per head.

6. MARKET CONSIDERATIONS

- In order to meet the desired customer specification, young bulls must be less than 16 months of age at slaughter.
- Young bulls should achieve a minimum fat class of “2+”. If a carcass is not sufficiently finished, the beef cuts look less appealing and eating quality is reduced. Poorly fleshed young bulls are more likely to produce dark-cutting beef.
- Strongest demand is for animals of conformation “O=” or better and with carcass weights of 270 kg upwards.
- Care should be taken in loading and transporting young bulls. To prevent stress, animals should be kept in their peer groups and slaughtered without delay.

7. GENERAL CONSIDERATIONS

- This system requires very little grass or silage. It therefore is not a stand-alone beef system on a beef farm. This is a high cost system and the gross margins achieved per head are very sensitive to calf purchase price, concentrate price and beef selling price.
- Without good daily gains at grass the carcass weight of 270 kg at less than 16 months will be hard to achieve. Lighter carcasses with inadequate fat covers are more difficult to market.
- With a high number of bulls finished per hectare fixed costs in the finishing period can be high (especially housing costs), eroding much of the gross margin achieved.
- An alternative to this system is the autumn born Holstein-Friesian under 16 month bull beef system. With an older calf going to grass there is a higher proportion of grass in the animal’s lifetime diet and the finishing period is shorter hence reducing the costs.
- As with any bull finishing system, producers need to discuss their plans with their processor to ensure there is a market for their product.
- Young bulls can be aggressive and require careful handling and management.