

Teagasc Green Acres Calf to Beef Fact Sheet



Finishing options for Holstein Friesian steers

Holstein Friesian males are the most numerous animal available from the dairy herd for beef production. Approximately 350,000 are available annually, with 75% of these finished as steers. A number of finishing options are available, including: 21; 24 and 28 month systems.

21-month steers

- Winter finishing can be avoided by slaughtering steers off pasture at the end of the second grazing season at 21 months.
- Slaughtering is targeted in November before housing, with an aim of producing a 280kg carcass.
- Over a 60-day feeding period at grass, commencing in September at an animal liveweight of 490kg, concentrate input will be approximately 350-400kg/head.
- Lifetime concentrate input in this system is 620kg, but optimum animal performance is required and calves need an early birth date (January/February).
- Grazed grass, silage and concentrates account for 63%, 19% and 18% respectively of the animals' overall diet.
- Steers may also be housed in September and finished indoors; however, the economics are unfavourable in comparison to grass finishing.
- Historically, November is a low price point in the year.

24-month steers

- Animals are housed in November after the second season at pasture.
- Weighing 530kg, steers are finished on a diet of silage *ad-lib* plus 5kg/day of concentrate, depending on silage quality.
- The target is to produce a steer carcass of 320kg at 24 months.
- The finishing period is approximately 100 days and the target liveweight at slaughter is 620kg.
- Lifetime concentrate input for this system is 1t.
- Grazed grass, silage and concentrates account for 52%, 26% and 22% respectively of the animals' overall diet.

28-month steers

- Steers are offered only high-quality grass (72% DMD) silage *ad-lib* for the second winter, targeting an average daily gain of 0.5kg.
- Where silage quality drops below this level, a degree of meal supplementation may be required.
- Steers are turned out to pasture in February/March for a third grazing season, during which time an ADG of 1.2kg is targeted.
- Slaughtering occurs in May/June – typically a high price point in the year.
- A carcass weight of 350kg is targeted.
- Lifetime concentrate input for animals produced under this system is 500kg.
- Grazed grass, silage and concentrates account for 65%, 26% and 9% respectively of the animals' overall diet.
- Steers which have failed to meet growth rate targets for the 24-month steer system tend to be redirected down this route, thus having a negative impact on the final carcass weight generated.



Table 1: Average daily gains and live weight targets for Holstein Friesian steers

	21-month steers		24-month steers		28-month steers	
	ADG (kg)	Weight (kg)	ADG (kg)	Weight (kg)	ADG (kg)	Weight (kg)
Weaned calf	-	85	-	85	-	85
First season at pasture	0.80	230	0.80	230	0.80	230
First winter	0.70	320	0.70	320	0.70	320
Second season at pasture	1.00	580	0.90	530	0.90	530
Second winter	-	-	1.00	620	0.50	580
Third season at pasture	-	-	-	-	1.20	680

Economics

The below table provides a cost breakdown of the various systems from acquiring the calf at three weeks of age through to slaughter. It was assumed that all animals were treated identically up until September of the second grazing season, when concentrates are introduced to steers destined for slaughter at 21 months. Fixed costs were based on previous findings from Phase One of the Teagasc Green Acres Programme, while an assumption was made that all animals would achieve the same carcass grades at slaughter (O-3+).

Table 2: Economic performance of 21, 24 and 28-month Holstein Friesian steers

	21-month steers (Grass finish)	24-month steers	28-month steers
Costs			
Calf rearing	€124	€124	€124
First season at pasture	€99	€99	€99
First winter	€106	€106	€106
Second season at pasture	€254	€149	€149
Second winter		€265	€171
Third season at pasture			€134
Total variable costs / head	€583	€743	€783
Number slaughter / ha	3	2.5	2
Fixed costs / head	€196	€236	€295
Total costs / head	€879	€1,079	€1,178
Carcass characteristics			
Target carcass weight	280kg	320kg	350kg
Carcass grade	O-3+	O-3+	O-3+
Economics			
Budgeted base price (A)(c/kg)			
Pricing structure (B)	-15c/kg*	-15c/kg*	-15c/kg*
Planned price (C = A - B)			
Carcass weight target (D)			
Carcass value (E = C x D)			
Costs (excluding calf price) (F)	€879	€1,079	€1,178
Budgeted calf price (G)			
Total costs (H = F + E)			
Profit/head (E-H)	€	€	€

*-15c/kg = -24 cent (O-) + 7 cent (35% QPS payment) + 2 cent (15% x 12c/kg on O-)

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

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