



AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

The Irish Agriculture and Food Development Authority

Economics of beef production systems



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Integrated suckler calf to beef production systems

Integrated calf to heifer & bull/steer beef systems

1. Heifer and indoor bull finishing



- ▶ Spring calving cow herd
- ▶ Bulls finished on high concentrate & forage diet
- ▶ Bulls slaughtered at <16 mo
- ▶ Heifers slaughtered at end of second grazing season at ~20 mo

2. Heifer and grass-based bull finishing



- ▶ Cow and heifer mgt. as previous system
- ▶ Bulls at grass for part second grazing
- ▶ Bulls rehoused on high concentrate diet for finishing at ~18 mo

3. Heifer and 24mo steer finishing



- ▶ Cow and heifer mgt as previous system
- ▶ Steers at grass for second grazing
- ▶ Steers finished at end of second winter

4. Heifer and 30mo steer finishing



- ▶ Cow and heifer mgt as previous system
- ▶ Steers at grass for second grazing
- ▶ Steers stored for second winter & finished at grass in third grazing season

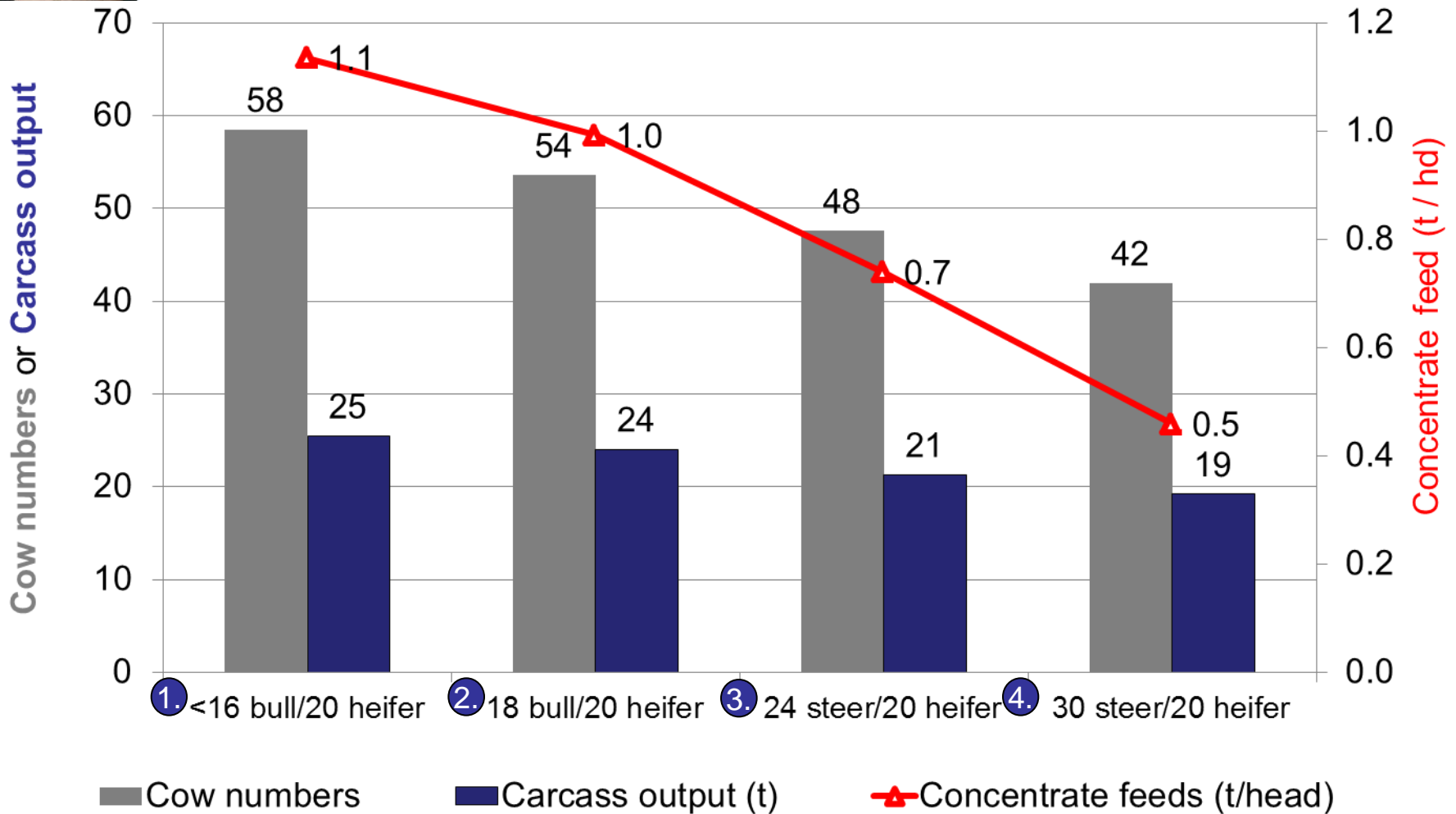


Assumptions

- Utilisable land area – 40 ha
- Concentrate feed price - €265/t
- Suckler replacements purchased at 12 mo of age
- Herbage utilised ~9 t DM/ha (approx top 5% of Teagasc Monitor farmers)
- Stocking rate ~2.5 LU/ha



Numbers and output





Economics

	<16 bull & 20 heifer	18 bull* & 20 heifer	24 steer & 20 heifer	30 steer & 20 heifer
Output (€/farm)	83,688	76,546	70,322	61,351
Variable costs (€/farm)	40,313	35,382	31,676	26,627
Gross margin (€/farm)	43,374	41,164	38,646	34,724
Gross margin (€/ha)	1,084	1,029	966	868
Net margin (€/farm)	20,054	18,739	15,874	13,177
Breakeven price (c/kg)	3.15	3.04	3.20	3.13
Price for €200/LU margin	3.98	3.88	4.11	4.16

*Contract or agreed sale required

Economics of weanling to bull & steer finishing systems

Weanling to bull/steer finish systems

1. Indoor bull finishing



- ▶ Purchased weanling
- ▶ Adapted on to high concentrate diet
- ▶ Finished at 14 to 18 mo

2. Grass-based bull finishing



- ▶ Purchased weanling
- ▶ Stored for first winter
- ▶ To pasture for part second grazing
- ▶ Rehoused for finishing at 18 to 22 mo

3. 2 yr old steer finishing

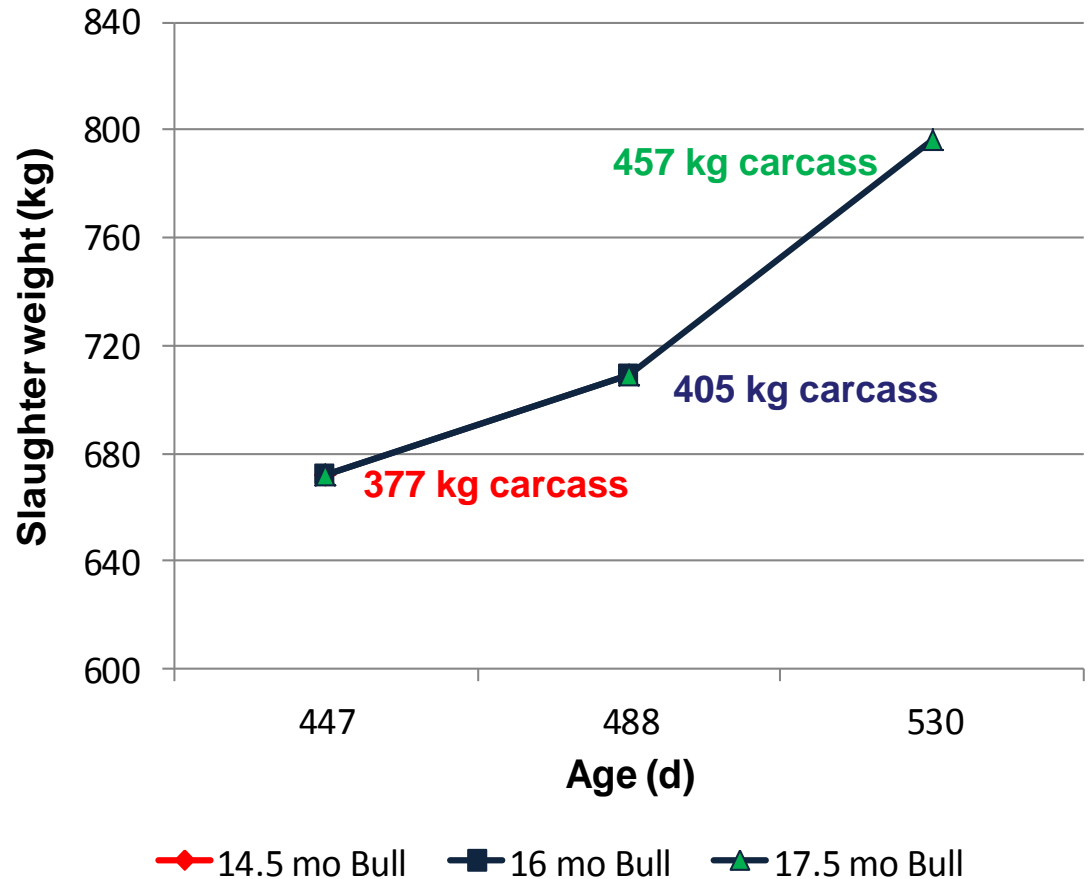


- ▶ Purchased weanling
- ▶ Stored for first winter
- ▶ To pasture for full second grazing season
- ▶ Rehoused for finishing at 24 mo



1. Indoor bull systems

- Feed system
 - Concentrate ad lib
 - Silage as fibre source
- Can carry high numbers per ha – low forage demand
- Analysis per head is most relevant
- Animal performance levels reasonably predictable





Indoor bull systems - economics

€/head (unless stated)	14.5 bull	16 bull	17.5 bull
Purchase price	893	893	893
Meals fed (t/head)	2.0	2.5	3.1
Meal cost	476	588	728
Total costs	1,594	1,725	1,885

Carcass weight (kg)	377	405	457
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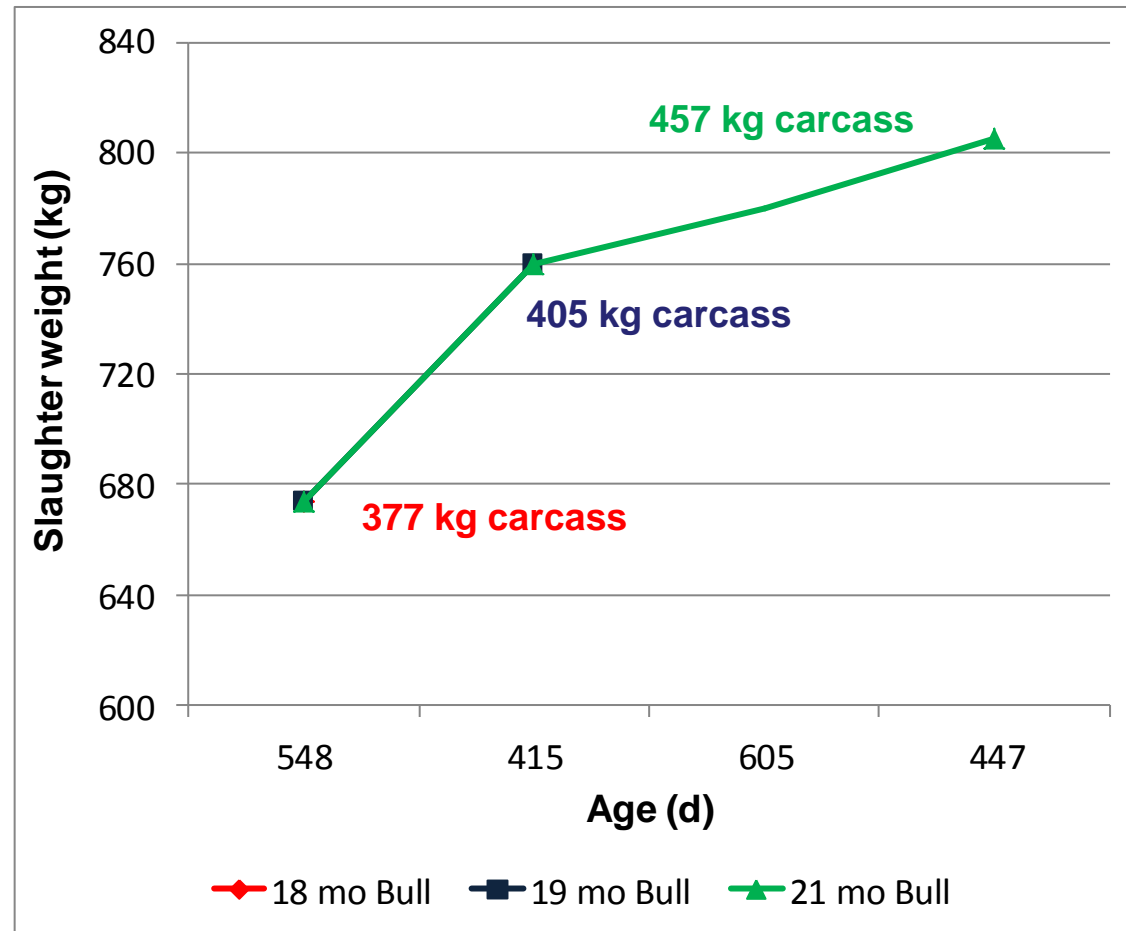
Breakeven beef price (€/kg)	4.08	4.12	4.00
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Beef price for €100/head margin (€/kg)	4.34	4.37	4.22
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2. Grass-based systems

- Feed system
 - Store for first winter
 - Part grazing season
 - Indoor finishing
- Higher forage demand - economics per head & hectare relevant
- Grazing management skills & infrastructure critical



Grass-based systems - economics

€/head (unless stated)	18 bull	19 bull	21 bull	24 steer
Purchase price	893	893	893	846
Meals fed (t/head)	0.5	1.1	1.6	0.9
Meal cost	129	252	392	216
Total costs	1,396	1,534	1,726	1536
Carcass weight (kg)	368	415	447	410
Breakeven (€/kg)	3.64	3.56	3.73	3.75
Beef price for €100/head margin (€/kg)	3.91	3.80	3.96	3.99
Bulls per ha	4.0	3.9	3.8	2.4

Risk factors for finishing beef cattle

System	Steer beef	<16 mo bull beef	Grass-based bull beef
Markets	Highest volume demand; (age & carcass weight specs)	Lower volume demand; (primarily UK market; age specs critical)	Lower volume demand, (primarily continental EU markets)
Contract selling	Low requirement	Contract selling advisable	Contract selling required
Concentrate price	Lowest exposure	Highest exposure	High exposure
Income potential	Moderate	Higher	Higher
Grazing management	Full grazing season; high autumn demand	Lowest grazing demand	Spring/summer grazing
Life time performance	~ 0.9 kg/day	~1.4 kg/day	~1.3 kg/day
Farmer safety	Vigilance required	Very high levels of vigilance required	Very high level of vigilance required