

Calving Heifers at 24 Months

Is it an Option?



Why Should We Consider It?

- Lifetime output of the cow is increased
- Leads to potentially faster genetic progress
- A lower proportion of non productive females in the herd
- Done successfully already on a small number of farms
- Less stock groupings on the farm
- Less likely to have an extended calving spread

ICBF – Heifer Calving Facts (2011 Calved Heifers)

Age at 1 st Calving (mths)	Avg Calving Interval Overall (days)	% Calving for a Second time	Avg Calving difficulty of bulls used on heifers	% of Heifers Calving Unassisted	% Mortality at 1 st Calving
23-26mths	383 days	85%	4.7%	50%	3.2%
27-30 mths	394 days	84%	5.1%	53%	2.8%
31-35 mths	392 days	88%	5.2%	58%	2.6%
36 40 mths	386 days	86%	5.2%	57%	2.0%

- No major difference in fertility with age of calving
- We are using bulls with too high calving difficulty on heifers
- All Heifers require a high level of supervision and assistance

Trial from US

	Age at First Calving	
	2 Years	3 Years
No. Of Heifers Starting	59	60
No. Remaining 12 years Later	23	22
Total No. Of Calves Weaned	533	481

Key Point – 10% Extra Calves Produced from 2 Year Old Calvers

Research/On Farm Data

DARD Herd Glenwherry

- 93% of 2yo Heifers calved again as 3yo
- 10 week breeding season

Teagasc/Farmers Journal BETTER Farm

Age @ 1 st Calving	Average Calving Interval
< 27mths (n=26)	372 days
>28mths (n=30)	383 days

Source: H Eggert 2011

Perceived Downside to Calving @ 24 Months

- Farmer Resistance
- Stunts the growth of the Heifer
- Calving Difficulty
- Won't go back in calve as second calvers
- Won't be big enough at 15 months to bull
- Smaller calves at weaning

Weanling Heifer

- Now is the time to select potential replacements
- Have you got weaning weights?
- Target heifers of good cows that have achieved 1.1kg/day or better since birth
- At 6 -7 months (weaning 200 days) should be a minimum of 260 kg
 - At housing mid November 300-320kg
- Have they been dosed for worms/ fluke



Managing the Heifer Over the 1st Winter

- Need targeted Performance of 0.6-0.7kg/day

- What is your silage quality like?

Even after a good year some silages are coming back in the low 60's for DMD.

DMD	Very poor (55%)	Poor (62%)	Average (68%)	High (72%)
ADG = 0.6 kg	3.5	2.5	2.0	1.0

- Need to be clean of parasites going into the winter
- Housing Conditions- Stocking density, ventilation, feed space are all critical
- Don't over rely on Compensatory Growth
- Early turnout is essential

Bulling the Heifer @ 15 Months

- Typical turnout weights should be 380-400kg for continental type heifers
- Two months out from breeding give booster or vaccinate heifers (BVD & Lepto)
- 4-6 weeks at grass pre-mating should mean heifers are comfortably 420-440kg at bulling
- Have you observed heifers 'on heat' pre bulling
 - Heifers not observed should be checked out
 - Prid or Cidr will stimulate heifers not already cycling

Select AI sires or stockbull with low calving difficulty < 4.5% (Dairy <2%)

Breeding season should last no longer than 10 weeks

Scan heifers 5 weeks after bull is removed

Heifers may need a worm dose for stomach worms but particularly hoose in mid summer

The 2nd Winter – The In-Calf Heifer

- Heifers that are scanned in calf should be weighing around 530-560kg
- Heifers should typically gain 0.4kg/day over the 2nd winter
- If Fluke is a problem dose them going into the winter
- 65%+ DMD Silage given ad lib should suffice *'Fit not Fat'*
- 6-8 weeks pre-calving introduce minerals
- Don't starve heifers precalving – Knock on effect on rebreeding
- Heifers will need supervision and assistance at calving irrespective of age

Management after Calving

- Management will vary depending on how close to turnout they calve
- Should ideally be penned separately from older cows
- If housed for more than 2 weeks after calving Good quality silage + 2kg of Meal
- Cannot afford to allow heifers to go back in condition after calving
- Grange experience has shown that some heifers may need a worm dose after calving if they are seen to be losing condition
- You can expect heifers calves to be 20-30kg lighter at weaning than those of mature cows

Calving @ 2 years- Weight Targets

Event	Weight	Age (mths)
Weaning weight	268	7
1 st winter	390	11
Turnout – Bulling	402	15
Bulling to mousing	543	19
Weaning 1 st calf	555	30
Weaning 2 nd Calf	633	42

**Weight for Age
Critical**

Main Points - TWO YEAR OLD CALVING

- Heifers selected from the best cows in the herd and be sired by bulls with strong maternal traits.
- Born early in the calving season to allow them to be heavier at bulling
- Need to achieve a daily liveweight gain of 1.1-1.3kg/day up to weaning.
- Have to achieve 60-80kg liveweight over the first winter - good quality silage plus 1-2kg of concentrates.
- Turned out early in spring to grass
- Reach 60% of their mature weight by bulling.
- Be bred to a known easy calving sire
- Reach 80% of their mature weight by time they calve down
- Require preferential treatment as first and second calvers.

Summary

- The most profitable age to calve heifers is 24 months. For a 50 cow herd calving 10 heifers, each additional month that calving is delayed costs €490. (*Grange 2013*)
- Achieving good weight for age at all stages is critical
- Use sires with known calving difficulty – ideally < 4.5%
- Pen 1st Calvers Separately and supplement with concentrates if they are going to be housed for longer than 2 weeks post calving
- In well run herds breeding their own replacements 2 Year old Calving is an option