Calving beef heifers at 24 months of age

As we strive to make our suckler herds more sustainable by reducing our costs and our carbon footprint, there is one area that many farmers fail to target: age at first calving

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Why calve beef heifers at 24 months? You'll have:

• More calves from each heifer over her lifetime.
• Reduced stocking rate compared with calving heifers at older ages.
• The potential to reduce the number of stock groups.
• Reduced costs – research at Teagasc Grange shows that for a 50-cow herd currently, only 24% are calving at 24 to 26 months, admittedly that's up from 18% four years ago.

Irish replacement heifers are currently averaging 31-32 months at first calving. Nationally, the target is to try to calve heifers at 24 months. Currently, only 24% are calving at 24 to 26 months, admittedly that’s up from 18% four years ago.

Why are farmers reluctant to try it?

• Heifers aren’t sufficiently well-grown at 15 months for bulling.
• It will stunt the heifers growth if they are bullied too early.
• They are too difficult to calve.
• They won’t go back in calf again as second calvers.
• Heifers are not that saleable if things go wrong during calving.

Heifers that calved at 24-26 months had as good a calving interval, and calved down as soon again as a second calver, as heifers calving down in the older categories.

The figures show that younger heifers do have slightly higher calf mortality. Heifers, irrespective of age, will be more difficult to calve and as the figures show will need assistance at calving. This could be reduced if we were more selective in the sires we put on heifers. Even the younger calving heifers are being mated with sires with an average calving difficulty of 4.7%.

Interestingly, our dairy counterparts try to mate their heifers calved down at two years with sires with a calving difficulty of 2% or less. We may never drop that low on the beef side but aim for 4% calving difficulty or less on heifers.

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Table 1: Replacement females born in 2011 (ICBF figures total = 131,077)

<table>
<thead>
<tr>
<th>Age at first calving (mths)</th>
<th>Avg calving interval Overall (days)</th>
<th>% Calving for a Second Time</th>
<th>Avg calving difficulty of bulls used on heifers</th>
<th>Heifers Calving associated (%)</th>
<th>Mortality at first calving (%)</th>
<th>Reaching fifth parity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>23-26 mths</td>
<td>383 days</td>
<td>82%</td>
<td>4.7%</td>
<td>50%</td>
<td>3.2%</td>
<td>39%</td>
</tr>
<tr>
<td>27-30 mths</td>
<td>394 days</td>
<td>83%</td>
<td>5.1%</td>
<td>53%</td>
<td>2.8%</td>
<td>20%</td>
</tr>
<tr>
<td>31-35 mths</td>
<td>392 days</td>
<td>87%</td>
<td>5.2%</td>
<td>58%</td>
<td>2.6%</td>
<td>4%</td>
</tr>
<tr>
<td>36-40 mths</td>
<td>386 days</td>
<td>86%</td>
<td>5.2%</td>
<td>57%</td>
<td>2.0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 2: Key weight targets

<table>
<thead>
<tr>
<th>Mature cow weight</th>
<th>Weaning weight</th>
<th>Bulling weight</th>
<th>Calving weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>600kg</td>
<td>260-280kg</td>
<td>360kg</td>
<td>480kg</td>
</tr>
<tr>
<td>700kg</td>
<td>300-320kg</td>
<td>420kg</td>
<td>560kg</td>
</tr>
</tbody>
</table>

Tips to achieve 24-month-old calving

1. Identify your replacements early: monitor all of your potential replacements as calves. By weaning time you should have identified the best performing heifers from your best cows and that have been sired by bulls that have good maternal traits.

2. Feed appropriately over first winter: heifers should be 280kg to 320kg at weaning, which means that you will need them gaining a minimum of 40kg to 80kg over their first winter if you want them to reach the target bulling weight at 15 months.

3. 60% of mature weight at bulling: if your mature cow weight is 700kg you will need your heifers to be around 420kg at bulling. Much lighter than this may mean some of the heifers aren’t cycling at the start of breeding. Heifers that are too light at bulling may well go in calf but they could struggle as first calvers to go back in calf again.

4. Calving ease of sire used: this is really a critical point. Irrespective of what breed you choose to use for your replacements, preferably an AI or a stock bull with proven ease of calving is paramount. The target is to get those young heifers calved safely and give them every chance to go back in calf again as first calvers. Ideally, select bulls with a proven calving difficulty of 4% or less. Using a young bull with low calving reliability is high risk in this type of system.

5. Pre-and post-calving care: Once successfully bred, heifers need to be well managed to achieve 80% of their mature weight by the time of calving. So if they average at least 0.6kg/day throughout pregnancy they should easily achieve this target. Monitor heifer body condition to ensure they are fit, not fat, at calving.

The statistics clearly show that we need to be particularly vigilant at calving. Between 0% and 40% of heifers will need some level of assistance at calving.

Once calved, don’t allow heifers to lose condition. A rapid turn out to grass after calving will help with this. Heifers that remain indoors for a month or more after calving should be supplemented with at least 2kg of concentrate day on good silage. This will help to avoid excessive weight loss which would delay their return to cycling and then rebreeding. We could clearly be getting more of our suckler heifers to calve at 24 months. If it is to be achieved there are targets that need to be met regarding the weight of heifers at weaning, breeding and calving. We need to be extremely mindful of our sire selection to avoid calving difficulty.

If we are continually improving the heifers coming into the herd it makes absolute sense to get them into the herd as early as possible and give them every chance to stay there.