

## What will I feed to calves?

Pre-weaning nutrition affects growth rates, health and the ability to cope with cold stress. Young animals have the ability to convert feed into growth most efficiently during the first two months of life.

- On arrival allow calves 2-3 hours rest before feeding a good rehydration electrolyte as a first feed.
- Take rectal body temperatures. A high temperature is often the first sign of sickness.
- Take sick animals to a sick pen for examination and possible treatment by, or upon advice of a veterinarian.

## Feeding Programme

- Feed calves 3 litres of calf milk replacer twice daily (at 12.5% solids) until they are at least three weeks of age.
- Supplement with good quality starter concentrates, and roughage in the form of good quality chopped straw (not hay).
- Calves should have access to clean fresh water at all times.
- Calves should not be weaned until they are consuming at least 1kg calf starter/day for three consecutive days.
- Wean calves gradually off milk replacer over a seven- to ten-day period. For a concentration of 12.5% solids use 125g of milk powder and 875 ml of water to make 1 litre of mixed milk.
- Protein levels in a calf milk replacer should be at least 23-26% and consist predominantly of milk proteins.
- Ensure that the water temperature is not greater than 39°C.



## How can I keep the calves healthy?

Scours and pneumonia are the two most common causes of ill-health in calves and they should be checked daily for both.

### Scours

- Attention to hygiene is crucial to prevent scours.
- Treatment consists of pain and fever treatment combined with rehydration and proper nutrition.
- Isolate them from other calves to avoid cross infection.
- Get electrolytes into them and **DO NOT** stop feeding them milk replacer.

### Pneumonia

- The underlying causes of pneumonia in calves can be very complex.
- Insufficient colostrum, poorly designed houses, over-crowding, inadequate nutrition and stress all increase the possibility of an outbreak.
- Veterinary advice should be sought for a suitable vaccination programme which should include *Pasteurella* and the respiratory viruses IBR (BHV-1), RSV and PI-3.

### Dehorning

- Use a heated disbudding iron, it is the only method legally allowed in Ireland.
- Ideally use a calf dehorning crate to minimise stress on the calf and for your own safety.

**Seek veterinary advice if sick calves do not respond quickly to treatment. DO NOT wean calves that show signs of ill-health.**

### More Information

Teagasc has more detailed information and advice on all aspects of calf rearing and dairy calf to beef systems on its website. Scan code to access.



# Buying Dairy Calves for Beef Production

*Guidelines for farmers considering purchasing calves born in dairy herds for beef production*



**Will I make a profit?**

**Do I have suitable housing?**

**Where will I source calves?**

**What will I feed to calves?**

**How can I keep the calves healthy?**

## Will I make a profit?

Dairy calf-to-beef systems are relatively low cost to invest in initially but can have high costs per head up to slaughter. Cash flow also needs to be considered as there may be no sales for a long period of time.

- For dairy calf-to-beef systems to be profitable the value of the carcass produced must cover:-
  1. The cost of buying the calf.
  2. All production costs to slaughter.
  3. A net margin per head.

**Before purchasing calves, beef farmers should estimate production costs and carcass value of the system they are aiming for to ensure they will return a profit.**

- The table below gives guideline costs (excluding labour) and carcass weights for the most common calf to beef systems (operated at a high level of efficiency).

### Guideline carcass weights and costs\*

Calf-to-beef system	Slaughtered	Carcass weight	Total costs (excl. labour)
Friesian Steer	24 months (indoors)	320 kg	€950
Early maturing steer	23 months (indoors)	310 kg	€850
Early maturing steer	26 months (off grass)	320 kg	€900
Early maturing heifer	21 months (off grass)	250 kg	€650

\* With moderate levels of efficiency use 5% lower carcass weights and 10% higher costs

- The figures above can be used by beef farmers to estimate the value of calves for sale:-

**Carcass weight × Estimated beef selling price (€ per kg)**

**Minus total costs (€ per head)**

**Minus net margin required (€ per head)**

**= Value of calf (€ per head)**

## Do I have suitable housing?

Housing is often the limiting factor on how many calves can be purchased. Calves should be housed in properly designed calf sheds with the correct space allowance, adequate ventilation and in very hygienic conditions with enough bedding.

### Space Allowance

- Calves may be kept in single pens or in groups.
- As a general guide a total floor area of 2.3m<sup>2</sup> per calf (includes feed passage) with a cubic air capacity of approximately 10m<sup>3</sup> per calf should be provided.

### Ventilation

- Ventilated housing that is free of draughts will reduce the environmental stresses on calves and adequate air changes resulting from good ventilation reduce the infection load on the calves.
- Air outlet areas should be a minimum of 0.05m<sup>2</sup> per calf and situated at least 1.5m higher than the inlet. The inlet area should be 4 times (minimum 2 times) the outlet area per calf.
- As a general rule of thumb, there should be 5cm of ridge opening for every 3.0m of building width.

### Bedding/hygiene

- Prior to the arrival of each batch of calves, the shed should be thoroughly cleaned and disinfected with a broad spectrum disinfectant.
- Bedding needs to be kept clean and dry and pens should be set up to allow for ease of cleaning and manure removal.
- Work and hygiene routines should be worked out in advance to prevent young calves catching disease from older or sick calves.

**The milk preparation area should be clean, dry and adjacent to the housing to reduce the labour input required at feeding.**

## Where will I source calves?

Buying healthy calves is critical to the profitability of the system. Purchased calves should be alert, have clear eyes, dry navel, no swelling of joints, no signs of scour or pneumonia, a shiny coat and a correct weight for its age.

1. Calves ideally should be at least 14 to 21 days old and have good weight for age (45 to 50kg at 2 weeks of age).
2. Try to choose calves that have been fed sufficient colostrum.
3. Select calves from as few sources as possible.

- The table below outlines the different sourcing options.

	Pro's	Con's
Mart	<ul style="list-style-type: none"> <li>● Convenient</li> <li>● You are paying market value for calves</li> </ul>	<ul style="list-style-type: none"> <li>● Unknown disease status</li> <li>● Calves have to be transported to and from mart</li> </ul>
Agent	<ul style="list-style-type: none"> <li>● Convenient</li> <li>● No need to go to mart yourself</li> <li>● Can set criteria regarding cost of calf/type of calf</li> </ul>	<ul style="list-style-type: none"> <li>● Unknown disease status</li> <li>● Calves may spend considerable time in transit</li> <li>● Need a good relationship with agent</li> </ul>
Direct from Farm	<ul style="list-style-type: none"> <li>● Can attain disease status including feeding of colostrum</li> <li>● Can plan for when calves are coming onto your farm</li> <li>● No need for you or calves to travel to and from the mart</li> </ul>	<ul style="list-style-type: none"> <li>● Requires planning and having agreement in place with dairy farmer</li> </ul>