

Milk feeding—high volume

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Research

Key Points

1. Traditional system used on dairy farms.
2. Good live weight gains achieved up until weaning.
3. Calves weaned at around 9-10 weeks at 90-100 kg for Friesians and 70 kg for Jerseys.
4. Uses a lot of milk (average 400 litres/calf) and generally requires a longer period of twice a day feeding.
5. Good growth rates can be achieved.
6. High milk volumes can delay rumen development and can result in a post- weaning check if the calf cannot digest enough grass to meet its energy requirements.
7. Hard to monitor calves in large groups.



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Calf Rearing Fact Sheet 3.3

General

- Traditionally, high volume milk systems are used on dairy farms as colostrum or vat milk is readily available. Mixing not required and seen as a cheaper option.
- High live weight gains can be achieved. To rear a 37 kg calf gaining 0.80 kg/day to 90 kg at weaning at 10 weeks of age on milk requires approximately 400 litres of milk.

Typical system

- There are many variations in terms of how much milk and for how long it is fed, when calves go outside and age at weaning.
- On arrival at the calf shed feed calves 2 litres of first day colostrum and a further 2 litres later. Calves trained to drink off a feeder.
- Calves are fed an average of between three and four litres of colostrum or vat milk twice a day. Milk best fed warmed to 37-39 degrees C.
- Some people feed milk *ad libitum* - meaning that milk is always available. Large quantities of milk can be consumed using this method.
- Calves can go outside from a week old if suitable shelter is accessible and the weather is good. There are benefits in the calves having access back to the sheds as these very young calves are vulnerable to cold.
- Once outside they are generally fed in large groups on a cafeteria pulled behind a vehicle - usually a motorbike. It is important to check all calves are feeding well and this is often difficult with 50 calves to a feeder.
- Calves consume minimal amounts of concentrates, whilst milk intake is high. Rumen development is delayed as a consequence.
- On average, calves are weaned off milk at 9-10 weeks of age.

Advantages

- Can be put outside early. Only a small amount (if any) concentrates are fed.
- As calves are outside early there is reduced exposure to high levels of pathogens.

Disadvantages

- Can get post weaning growth check due to poor rumen development.
- Feed a lot more milk with less control so easier to get nutritional scours as some calves can drink more than their share. More expensive than some other options.
- Less 'hands on' so harder to closely monitor individual calves in larger groups.
- Wean later and feed twice a day for longer so higher labour inputs.