Colostrum hygiene

Contamination during collection, transfer or feeding puts the calf at risk by introducing harmful bacteria when the calf has no active immunity to fight infection.

Quality

Collect colostrum hygienically

Attention to hygiene is vital

Know the disease status of your cows. Do not collect colostrum from cows that are Johne’s positive or suffering from post-calving conditions.

Ensure udder cleanliness. An effective teat disinfectant routine will remove bacteria. Teat preparation should be carried out to remove any teat sealant.

Avoid contaminating the colostrum yourself. Make sure your hands are clean, ideally wear gloves.

Sanitise the cluster and pipework, both inside and out after every use.

Use a clean dump bucket and transfer the colostrum to a clean bucket with a lid on.

Remember to test all colostrum to determine the level of antibody present.

Storing colostrum

Bacterial numbers in warm colostrum can double every 20 minutes.

Fresh colostrum should be fed to calves within 1 hour of collection or pasteurised and/or stored appropriately.

There are three ways to help reduce the rate of microbe multiplication: refrigeration, freezing or pasteurisation.

<table>
<thead>
<tr>
<th></th>
<th>Refrigeration</th>
<th>Freezing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of storage</td>
<td>24 hours</td>
<td>Up to 1 year</td>
</tr>
<tr>
<td>Storage method</td>
<td>1-2 litre</td>
<td>1-2 litre zip bags/purpose made flat storage bags</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>4°C</td>
<td>-18 to -20°C</td>
</tr>
</tbody>
</table>

Ensure that all stored colostrum is labelled with the collection date and cow identity. This is particularly important if the cow later tests positive for Johne’s disease.

Remember to regularly check the temperature of fridges and freezers with a thermometer.
Pasteurising colostrum

Pasteurisation is not a storage method but rather a way to reduce the number of bacteria present, therefore, the colostrum still needs to be chilled or frozen.

If using a pasteuriser refer to the manufacturer’s instructions with regard to batch quantities.

Pasteurisation does not make low quality or highly contaminated colostrum fit to be fed.

Hygiene testing

If you are concerned about whether you are at risk of feeding contaminated colostrum to your calves, you can have it tested.

Testing colostrum for bacterial counts can help identify if changes are needed to the way colostrum is collected and stored.

The sample should be taken just before it is fed to the calf.

Ask your vet for more details.

Preparation

Colostrum should be fed at body temperature of 38°C.

Frozen colostrum can be thawed in the refrigerator overnight.

Colostrum should be warmed in a water bath, maximum temperature of 50°C, so the colostrum itself reaches 40-42°C. This allows for a slight cooling before it reaches the calf.

Once warmed use within 30 minutes.

Check the temperature using a thermometer.

Do not use a microwave to reheat/thaw the colostrum nor overheat as this will destroy the antibodies.

For more information on calf management, please visit the web: dairy.ahdb.org.uk/calves

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