Calf Scour

Calf scour is a frustratingly common disease experienced on the majority of cattle farms in the UK and around the world. However control and prevention of this costly disease is very much within all of our reaches. With a critical eye, experienced input and meticulous attention to detail, this disease can be successfully reduced and even eliminated from our farms.

Calf scour investigations often begin with a hunt for a bug involved. Frequently however the pathogen found is only symptomatic of an underlying husbandry or management problem. Investigations need to start at the beginning i.e. calving, and look at calf rearing as a whole. It can be surprising what simple & cheap measures can be found to significantly improve the health & welfare of calves without spending a lot on vaccination or veterinary treatments. In certain circumstances these measures alone may not be enough, and the input of experienced farms vets, accurate diagnostics and team work are essential to improving the on-farm situation.

Control & Prevention

Control and Prevention of calf scour starts in the calving environment, which should be kept meticulously clean. Removal of afterbirth and dung as soon as possible will help keep the bed clean and reduce the build up of bugs. Removing the calf from the calving environment immediately can reduce the risk of disease transmission both from the dam and its surroundings ("snatch" calving is advised for Johnes control programmes). Colostrum (first milk) is full of antibodies and energy and essential for every calf within 6 hours of birth, to reduce the risks of many diseases including scour. It's thought up to 50% of calves do not receive enough colostrum. Much work has been done looking at colostrum feeding (methods, quality, cows vs. heifers, volume, timing), but most agree each calf should receive at least 3 litres of colostrum within 6 hours. Colostrometers can be used to quickly assess the quality of colostrum on farm. Sucking appears to improve absorption in some studies, but be prepared to stomach tube colostrum if in any doubt whether adequate has been given. Certain breeds may benefit from smaller feeds given little & often in the first 6 hours, e.g. Jersey calves, but the total volume fed remains the same (i.e. 3 litres). After 6 hours the calf's ability to absorb antibodies is significantly reduced. Once penned, calves must be kept clean & dry. Any individual that appears off colour should be isolated immediately. Cleanliness includes feeders, water, passageways, pen divides etc. Samples of scour should be taken before any treatment is given so that diagnostics can be undertaken if appropriate – consult your vet.

This calf is showing signs of excessive faecal staining of the back end and belly, poor coat & body growth, and sunken eyes suggesting that it is losing its battle with scour. Without prompt isolation and treatment, it could spread the cause of scour to others, collapse and ultimately die.

- Colostrum feeding is essential – 3L within 6h. Calves which fail to receive this are over 4 times more likely to suffer disease
- Cleanliness and hygiene of calving pens and calf rearing accommodation/utensils is crucial to reducing disease risks
- Isolation, prompt examination and treatment of sick individuals are essential to controlling outbreaks – samples should be tested after discussion with your vet
- Attention to detail, consistency and routines help to enable healthy calf rearing – your vet can help setting up Standard Operating Procedure's (S.O.P's)
- Team effort – talk to your vet and those responsible for calves. Address problems early, monitor outcomes and be prepared to change things as necessary
- If a particular bug is found and is significant – discuss with your vet the best options for control/prevention

XLVets **Calf Scour**

General Health and Health Planning

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Example calf rearing S.O.P:

- Ensure calving pen and calf pens are meticulously clean
- Remove calf from dam ASAP and ensure at least 3L colostrum given within 6h of birth
- Feed at least 2.5L milk, twice a day, preferably on a rising volume system until weaning. Clean equipment every day
- Ensure milk fed (be it powder or fresh) is at correct temperature, fed cleanly and consistently
- Do not feed mastitic/antibiotic milk
- Do no feed soured or pooled colostrum – significant disease transmission risks
- Ensure fresh clean water available to all, at all times. Clean and wash equipment daily
- Ensure access to purpose-made calf concentrate from 3-7 days and step-up gradually until weaning when eating a minimum of 1.5-2kg concentrate/calf/day. Clean equipment daily
- Ensure access to forage (straw/hay) at all times, from 3-7 days; fed from racks above floor level. Discourage eating of bedding as this is a major disease transmission risk
- Replace/top-up clean pens/ bedding as often as necessary and at least daily

Example calf scour treatment S.O.P:

- Isolate individual immediately, take sample of faeces for vet
- Assess calf's hydration status (sunken eyes, skin tenting) and whether still willing to suck – seek vet advice if concerned
- Feed little and often alternate electrolyte and milk feeds. Need to ensure still consuming adequate daily volumes of fluids, e.g. 4–6 smaller feeds a day, spaced out by few hours. Milk provides energy needed for gut repair & should not be stopped
- Collapsed calves need immediate vet treatment
- If particular bug involved, can be treated under vet instruction – may direct future vaccination strategy, e.g. Salmonella, Rotavirus or E.coli vaccination of dry cows
- Ensure treatment option does not become "band-aid" for underlying management problem

A healthy sight – a line of nice clean bottoms – what we all should be striving for!

Costs of calf scour:

- Reduced daily liveweight gain (ideal is average 0.6-0.7kg/day) ►older age at first service/first calving ► delayed profitability
- Older heifers at first calving (>28m) associated with higher risk of calving difficulties and poorer long term herd survivability
- Increased susceptibility to calf diseases ► increased calf losses ► increased replacement costs
- Increased vet/med costs
- Increased labour costs (isolation, materials, individual attention)
- Reduced team morale – increased job dissatisfaction. Unhappy calves and staff

Clean calf pens are essential to calf health. If individual calf hutches are used, extreme care must be taken over location, drainage, shelter and hygiene – discuss with your vet if unsure.

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