

Keeping cattle clean during finishing

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Using the advice in this booklet will aid in keeping cattle clean for slaughter, and the adoption of a [Hazard Analysis Critical Control Point \(HACCP\)](#) type of approach toward cattle management and production can reduce the risk of contamination further.

Finishing at grass

Grass-finished cattle are relatively clean, but wet summers and heavy, poorly drained soils can result in wet, muddy animals. Infection with gastrointestinal worms and grazing of young, lush grass increases the risk of scouring and dung contamination. Excessive use of nitrogen fertiliser and over-feeding minerals also causes cattle to be loose and dirty. In adverse weather and poor ground conditions, it may be necessary to house animals for a period before slaughter, to clean and dry them. Care is needed to minimise the risk of digestive upset and scour as a result of diet change at housing. Free access to straw or hay before and after housing is recommended.

The following should be considered when producing and finishing beef cattle from grass:

- plan an appropriate fertiliser programme before cattle are turned out
- plan an appropriate parasite- control programme with your veterinary adviser before turn out (take care to comply with withdrawal periods for anthelmintics)
- provide free-access to straw or hay when stock are on lush grazing during prolonged wet weather and before and after housing
- move ring feeders and creep feeders frequently to avoid poaching and muddiness
- treat specific mineral and vitamin deficiencies known to occur in your herd and avoid routine free-access supply of general purpose supplements
- supply magnesium to susceptible stock only during risk periods

Diet

Silage-based diets and roots

Silage-based diets and roots produce the greatest likelihood of visible dirtiness because they result in large quantities of wet dung.

Good digestibility and protein content of silage are required for good production performance, but to minimise the likelihood of dirty cattle:

- use appropriate amounts of fertiliser on silage fields and do not apply fertiliser within six weeks of the expected cutting date
- wilt the silage well when weather conditions permit
- have silages analysed in advance of feeding. This may allow you to ear-mark the most suitable silages for finishing groups and young calves
- use analysis to balance protein and energy levels correctly in the ration
- provide cattle with free access to straw feed from a ring feeder or trough (not just from the bedding).. Alternatively include long-chopped straw in a mixer waggon rations

- add sodium bicarbonate to rations containing acidic silage

Hay-based diets

Hay-based diets produce relatively clean cattle, but are rarely an option for high performance finishing animals, because of the low nutrient value.

Intensive cereal diets

These rations produce small quantities of high dry matter dung and therefore cattle appear generally clean. However, health problems, including scouring, can occur if an intensive cereal diet is introduced or changed too rapidly, if it is nutritionally unbalanced, if there is a lack of long fibre in the diet, or if cereals are too finely ground.

- ensure the ration is correctly balanced for protein, energy, minerals and vitamins
- provide free access to straw fed from a trough or ring feeder (not just from the bedding)
- use cereals which have been lightly rolled, not finely ground

Other dietary factors

Overfeeding minerals, particularly magnesium and salt, increases the risk of dung contamination of the hide by causing mild scouring and increased urine production. Access to minerals and salt should be restricted as cattle have a tendency to eat more than they need. Caustic soda treatment of grain and straw increases sodium intake and urine production and can cause a mild scour, increasing the risk of dirtiness.

Abrupt feed changes can lead to digestive upset, scouring, poor cattle performance and dirtiness.

Aim to:

- feed minerals formulated accordingly to the type of diet and at levels appropriate to the type of stock
- avoid feeding free-access minerals or slat licks
- avoid caustic soda-treated feeds for finishing rations
- always make diet changes gradually

Housing

In the UK, the highest rejection rates for dirty cattle at slaughter occur from October to April. Poor housing design and management are significant contributory factors. It is more difficult to keep cattle clean in slatted yards than straw-bedded yards, but a well-managed slatted system can produce cleaner cattle than a poorly managed straw yard.

General building design

Good ventilation, drainage and aspect are important considerations for a good cattle building. Humidity and condensation in poorly ventilated buildings result in dirtier cattle. Uneven floor surfaces, poor drainage and leaking roofs, gutters and water troughs also cause wet, dirty hides.

Aim to achieve the following:

- cattle housing well ventilated
- concrete flooring sloped sufficiently to allow adequate drainage and dirty water from these areas removed prevent pollution travel to keep
- floors free of pot-holes, and roofs, guttering and water troughs well maintained

- feed trough raised about bedding height, or solid low level feed barriers set at a suitable height above the floor, to avoid dung contamination of feeds
- fully enclosed yards sited with the longitudinal axis running north-south
- open-fronted yards facing south or south-east

Slatted yards

Both over-stocking and under-stocking limit the treading of dung through the slats and result in dirtiness.

Small cattle should be kept in a smaller area (tighter) initially, and given more space, according to their size, as they grow.

When animals are removed for slaughter, the space for the remaining cattle needs to be reduced. It may be possible to combine groups of steers or heifers, although mixing should be avoided where possible, particularly in groups close to slaughter.

For bulls, the pen size should be reduced with moveable gates. Unfamiliar animals in particular bull groups should not be mixed due to the disturbance and aggression this causes, which in itself will cause dirtiness as well as reduced performance and an increased risk of injury.

Feed space allowance is a further consideration.

When a fixed - ration is provided to cattle, sufficient space at the feeder should be available for all animals at any given time and this may prevent the correct stocking rate being achieved. Animals fed DG OLELWXP do not require as much feed space access (minimum 50% at any given time) Optimum stocking rates and feed space allowances are given in [Appendix 4](#).

Aim to achieve:

- stocking rates appropriate for the size of cattle
- slurry storage and frequency of the removal adequate to prevent blocked slats
- solid floor areas at the end of the slats are sloped to minimise dung build up
- nipple-drinkers in preference to water troughs because they minimise obstructed areas where dung can collect
- bottom rails of gates and pen divisions 200-250mm above the floor
- moving cattle to a straw-bedded “marketing yard” as they approached finished condition if they require cleaning up
- not mixing animals from different groups
- keep mixing to a minimum toward the end of finishing

Straw-bedded yards

Overstocking, insufficient bedding or infrequent bedding-up are the main reasons for dirtiness in straw-bedded yards.

Extra straw provision will not compensate for overstocking. Straw shredders allow quick, even bedding-up, but research has shown that adequate amounts of straw must be used if animals are to be kept clean.

Large wood chips can be considered as an alternative material to straw for bedding finishing cattle. Animals tend to defecate and urinate more in the loafing/feeding area, which often becomes very wet and dirty in completely bedded yards. It is therefore preferable to provide a clear concrete standing that is easily kept clean.

Aim to achieve:

- space allowance appropriate for the size and number of cattle Optimum allowances are given in [Appendix 4](#)
- frequent bedding up with adequate straw to ensure cleanliness
- a clean loafing/feeding area and scrape regularly
- bedding straw stored under cover, wrapped or well covered with plastic sheeting, and stacked on a free draining site

Cubicle housing

Cubicles are not recommended for growing and fattening cattle as the cubicle size required increases as the animal grows. If cubicles are too small, cattle tend to lie in dirty passageways, whereas over- large cubicles allow animals to defecate on the bedding. Both problems lead to dirtiness.

Cattle health

Any disease or disorder that causes scouring increases the risk of a dirty hide. Sweaty animals also become dirty more easily. In addition, any illness reduces the animal's overall resistance to disease; so sick cattle are more susceptible to other infection, for example E.Coli and Salmonella.

Therefore, good general herd health management is important in reducing the risk of cattle carrying pathogenic organisms at slaughter, which could lead to food poisoning in humans.

A good, all-round preventative farm health plan should include:

- a well balanced diet
- prevention of coccidiosis and salmonellosis by good hygiene and appropriate veterinary medicine usage
- appropriate worming at housing to prevent over-wintered ostertagiasis (ivermectin-type wormers have to added benefit of controlling external parasites)
- prevention of copper deficiency – a common cause of scouring
- an appropriate supply of mineral/vitamin supplements that are correctly balanced
- prevention of pneumonia
- good general hygiene and stockmanship

Clipping cattle at housing

Clipping the backs of finishing cattle at housing (approximately 5 cm each side of the spine) helps to reduce sweating and the risk of wet, dirty hides. Tails should be trimmed at housing to avoid dirt being flicked over the hide.

If it is necessary to trim dirty hair on the belly and flanks of cattle, clipping should be delayed until the animal is ready for slaughter. Animals marketed from March onwards are likely to shed any long hair, and any adherent dirt, naturally.

Clipping has been shown to remove visible dirt before slaughter, but trimming these areas earlier can mean that dirt subsequently becomes ingrained close to the skin where it is more difficult to loosen. When clipping great care is needed to prevent injury to farm staff or animals, and should only be undertaken if adequate facilities and equipment are available.

[The Health and Safety Executive's \(HSE\) Agriculture Information Sheet No 35](#) outlines safe clipping practice. See [Appendix 5](#).

- clipping at housing should only be carried out when required to prevent animal sweating (5cm each side of the spine)

- clipping to clean-up for slaughter should be carried out as close to the slaughter date as possible
- tails should be kept trimmed