



7-step guide to disbudding a calf

Disbudding has benefits for both farm staff and animals, and making it as painless as possible for all involved requires good training and an efficient system, as vet **Jonathan Duncan** explains

1. GET ORGANISED

Construction of a dedicated disbudding toolbox helps to ensure the equipment is located together in a clean and functional manner.

This should include:

- * A supply of new 10ml syringes and 18 gauge/1in needles
- * Local anaesthetic and analgesic/anti-inflammatory drugs
- * Disbudding iron and spares
- * Fuel for the iron
- * A wire brush
- * "Blue" or "silver" spray cans and instruments for removal of supernumerary teats.

2. CORRECT CALF SELECTION

Disbudding must be completed before two months of age, but with a healthy calf, hot-iron disbudding is best performed at two to six weeks of age, before overgrowth of the horn bud.

3. APPROPRIATE RESTRAINT

The calf should not struggle through

any part of the procedure. A stressed calf means a stressed worker, which is self-perpetuating. With small numbers, restraint can easily be carried out by a competent handler, with the calf gently pushed into the corner of a pen by the restraining person's legs. The head can then be held by the nose and ear to present the horn bud.

When larger numbers are involved, investment in a purpose-built crush and race system is definitely the way to go.

4. EFFECTIVE ANAESTHESIA

Use of a local anaesthetic is a legal requirement of hot-iron disbudding. This provides a cornual nerve block, which prevents the calf feeling the cauterisation process of disbudding.

To block this branch of the lachrymal nerve you must locate the bony ridge situated halfway between the corner of the eye and the ear.

Inject 2-5ml of local anaesthetic under the bony ridge. A small amount

of blood after injection is a good indicator of accuracy, as the nerve runs alongside the blood vessels.

The local anaesthetic is effective within seven minutes of administration. It has a variable length of action, but is reliable for up to one hour. If you are unsure whether it has worked, you can repeat the nerve block after seven minutes.

5. SMOOTH CAUTERY

Place the heated iron on the bud while holding the calf's muzzle. Exert firm pressure for five seconds before beginning the circular motion around the bud, maintaining pressure. You will feel the iron cauterise and sear through the layers of tissue.

Finish by removing the bud with a quick flick of your hand.

The whole process to remove both buds should take no longer than 45 seconds. Slow disbudding is most commonly due to an iron that is not reaching a high enough temperature.

6. PAIN RELIEF

Behavioural monitoring of calves has shown the process to be markedly uncomfortable over the following hours and days. The economic impact of the associated reduced feed intake, and hence growth rate, is well documented.

Use of non-steroidal anti-inflammatory drugs helps to reduce the pain associated with disbudding. This helps maintain feed intake, making it a cost-beneficial tool that also counters some of the stress.

7. PREVENTING INFECTION

The environment should be clean and dry at all times to optimise calf health from birth. In this instance, good hygiene also serves to limit the chance of bacterial contamination of the disbudding wound.

Most commonly "blue" (antibiotic) sprays are used to reduce infection risk, and while this may help kill some bacteria initially, it would be preferable to use a "silver"

aluminium-based spray, as this aids wound healing and forms a physical barrier to help prevent direct contact with contaminants.

Calves often rub the cauterised areas on gates/walls when they are uncomfortable, decelerating wound healing and increasing the risk of infection. Use of anti-inflammatories can help alleviate this discomfort.

USE OF SEDATIVES

* For large numbers of disbuds at busy times of year, or farmers who are particularly focused on reaching optimal weight at the correct age of first calving (24 months), vets can also use sedatives.

Fasted calves are sedated with xylazine, rendering them recumbent and "asleep". Vets can comfortably disbud 50 calves an hour, making it a cost-effective procedure as no assistance is required.