

## How to examine a cow's foot

- systematic approach
- thorough search
- use hoof testers

Most causes of lameness in cattle are caused by disorders of the foot, so after the animal has been examined standing and walking, if there is no obvious abnormality, examination of the foot is the next step.

It is important that the examination is systematic, so that no area is left unchecked, and that it is thorough, some causes of lameness, particularly hoof abscesses, show little or no visible signs on the sole surface.

### 1 Look at the cow standing and walking.

Prior to foot examination, look closely at the cow as she stands and walks.

Look for obvious signs of swelling or muscle wastage. Footrot often causes swelling above both claws. Foot abscesses can cause swelling of the bulb of one heel. Hip arthritis can cause wasting of the muscles of the rump, whereas a dislocated hip in a standing animal can cause the same muscles to appear swollen.

Check for wounds in the skin and discharge. Foot abscesses can cause a break in the skin at the heel or coronet. Puncture to the skin anywhere on a leg can cause infection, discharge, swelling and lameness.

Look at the way the cow stands. Both hindfeet held under the cow (camping forward) could indicate toe pain, or laminitis. Both hindfeet held well behind their normal position (camped behind) can indicate heel pain. If either the front or back legs are crossed, pain may be present in both medial (inside) claws. If the cow stands with her lame leg extended away from her body, this may indicate that the outside claw is painful, and should be checked first. Similarly, if the inside claw is affected, the cow may stand with her leg pulled in under her body, so that she bears her weight on the outside claw. If one leg is held off the ground, pain is severe, and a toe abscess, severe infection or even a fracture may be present.

Examine the way the cow walks. Determine which leg is lame. (Tip: The lame leg is usually opposite the leg that is moving forward fastest at the walk.) Short, rapid steps, especially if the back is hunched, may indicate pain in more than one foot.

**2 If the cause of lameness is not obvious, lift the lame leg and clean the foot thoroughly.**

Cows often walk in dirt, mud or manure, and the cause of lameness is easily missed in the contamination. It is essential that the two claws and the space between them are cleaned thoroughly, preferably with water and a scrubbing brush. In particular, the soles must be scrubbed clean and examined carefully for black marks, by exploring it with a hoof knife. If the sole is heavily caked with mud and manure (eg, animals at pasture or confined in corrals or straw yards), it is quicker and easier to cut off a layer of superficial horn together with the caked material to expose fresh horn beneath. Particular attention should be paid to the abaxial white line area. Removal of large amounts of sole horn is contraindicated in the diagnostic phase of an examination. The interdigital space should be evaluated by separating the claws and examining carefully for evidence of a foreign body, fibroma, footrot, interdigital dermatitis, or digital dermatitis.

The axial surfaces of the claws should be equally concave. Excessive concavity of the axial surface of the lateral claw is a bad trait in young cattle, particularly males. This trait is associated with corkscrew claw in later life. In animals exposed to concrete surfaces for a prolonged period, the sole of the lateral claw is likely to be worn flat and become much wider than the medial claw.

**3 Check the space between the claws, and explore the tight area between the heels with a finger.**

The area between the claws is a common place for foreign objects to lodge, especially stones or sticks. These can cause pain and lameness in their own right, or cause a break in the skin, allowing the footrot bacteria to enter the tissue of the foot and cause infection. Remove any foreign objects.

Footrot also may be present without a foreign object between the claws. The split in the skin, and swelling of the foot in a case of footrot may occur at the front of the interdigital space, in the middle, or at the back of the foot, between the bulbs of the heels. Although it is difficult to examine this area as space is limited, it is still important to do so. Otherwise foreign objects or cases of footrot will be missed

The area should also be checked for growths (interdigital fibromas), dermatitis (hairy warts) and blisters or vesicles (foot and mouth disease).

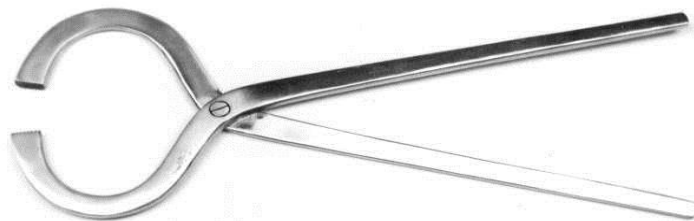
**4 Scrape or sand the entire surface of both soles to check for cracks, bruises, white line disease or ulcers.**

A hoof knife can be used to scrape the soles, or a 4" angle grinder with a coarse paper disc used to lightly sand the soles clean. Any crack in the walls or along the white line, or any cut on the soles must be followed until it vanishes, making sure that it is not the cause of an abscess. The entire sole should be checked for bruises. The area towards the heel should be checked for ulcers, and the point of the toe examined for excessive wear, especially in heifers.

Areas of exploration along the wall should be cleaned out so that a cavity packed with gravel does not develop.

**5 If no abnormality is found, it is important to check the sole of both claws with hoof testers.**

Occasionally, cracks causing hoof abscesses are very fine, and difficult to detect with the naked eye. Placing pressure on the soles of each claw with hoof testers may not only detect pain, but also cause a small amount of pus or water to ooze from the crack under pressure, making detection easier. If the sole is wetted, a small bubble of air may escape from the crack when pressure is applied with the hoof testers, again assisting detection.



Hoof Tester

**6 If no abnormality is found on the soles, it is important to examine the rest of the foot.**

Check the axial hoof wall (between the two claws) for axial wall cracks. Examine the vertical hoof wall for cracks especially at the front of the claws, and look closely at the coronet for evidence of abscesses that have ruptured to the exterior in this area. Check the bulbs of the heels, especially where the skin meets the hoof, for evidence of abscesses that have broken out at this point.

**7 If no abnormality is found in the foot, it is important to examine the rest of the leg closely.**

Check the leg for wounds, and the fetlock, hock and stifle joints for swellings.