

Animal Husbandry Procedures: Practical Aspects

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Introduction

Good animal husbandry practices at farm level form an essential component of the good management and quality production. The most common animal husbandry practices are castration, dehorning, branding and nose roping are more common humane practices in animal husbandry. Castration of male goat and male calves destined for meat and beef production is a common management practice. Benefits of castration include a reduction in aggression and mounting behavior of males causing fewer injuries in confinement operations and reduced dark-cutting beef. Steers also have higher quality meat with increased tenderness and marbling. Carcasses from steers therefore command higher prices at market when compared with bulls. Castration also prevents physically or genetically inferior males from reproducing and prevents pregnancy in commingled pubescent groups. Painful procedures such as dehorning and branding were being done at a younger age when producers felt it would be less traumatic. Castration and dehorning both practices are commonly performed on cattle for a variety of reasons, such as to **improve safety for handlers and other animals, prevent injury, reduce aggression**, and improve meat quality. All procedures are to be carried out with the involvement of a registered veterinary practitioner, along with the mandatory use of general and local anesthetics.

Best Animal Husbandry Procedures

A Registered Veterinary Practitioner will do the following animal husbandry procedures:



1. Castration: Castration is the process of removing the testicles of male animals. Castration is performed on male food animals to minimize male aggressive behaviors, improve carcass quality, and eliminate the risk of unwanted pregnancies in the feeding period. The castration of an animal shall be performed at early age as using anesthesia and analgesia under supervision of registered veterinary practitioner. The optimal age of castration for different animals are: 3-6 months for bovines, 8-12 wks for sheep and goat, 6-12 months for equine, 4-14 days for piglet and 6-9 months for dogs. The castration of an animal shall be done by following manners.

- To minimize pain and stress to the animal and the resultant production loss always castrate calves as young as possible.
- A good restraint of animal is essential.
- The animal shall be blind folded and humanely handled before and during castration.
- General and local anesthesia shall be given to animals before castration.
- During anesthesia, animal shall be placed on a soft ground on lateral recumbency with the head elevated.
- Castration through physical method using Burdizzo clamp to ensure strict asepsis and through surgical method shall ensure Halstead's principles.
- Post-procedural analgesics shall be given to animals.

Castration mainly done by two methods: Non surgical method: By Burdizzo castrator.

Burdizzo's are a non-surgical method that uses a crushing action to ligate the blood vessels and vas deferens to the testicles. This method is good for larger calves.

Surgical Method: Surgical castration is the most common method of castration in other country, this involves the use of a scalpel, and/or a tool called an emasculator, which provides a 3 layered crush to the tissue above the testicle.

2. Dehorning/Disbudding: Dehorning is the process of removing or **reducing the horns of cattle**. Dehorning is performed to reduce the risk of injury to livestock caregivers and pen mates and to decrease carcass bruising. Dehorned animals also require less bunk space. Regardless of the method used, dehorning has been shown to be painful. This can be done by following manners.

- Dehorning is a painful process and always dehorn the animal as young as possible to minimize pain and stress to the animal and resultant production loss.
- The animal shall be blind folded and humanely handled before and during dehorning.



- Administration of sedatives, analgesics and local anesthesia shall be provided to animals under supervision of a registered veterinary practitioner.
- Whichever dehorning instruments are used, it must be well maintained, clean and sharp.
- Remove a complete ring of hair 1 cm wide around the base of the horn to prevent horn regrowth.
- Post-procedural analgesics shall be given to animals.
- The animal shall be given post-operative care to provide sterile wound healing condition.
- Wherever selection and breeding of polled cattle is preferred as a policy, dehorning and disbudding shall be discouraged.

3. Branding: There are two types of branding hot-iron branding and freeze iron branding. Branding irons can be letters, numbers or symbol. Branding iron must be properly maintained and cleaned before and after use. The edge should be relatively thick and flat, not sharp rounded or dented. This can be done by following manners.

Hot branding:

- The animal shall be blind folded and humanely handled before and during dehorning.
- Ensure branding irons are well maintained and heating equipment is adequate to reach and hold the required temperature.
- Never brand the wet, weak or emaciated animals.
- Hot branding shall only be carried on dead tissues such as hoof in the case of horses or horn in the case of cattle.
- The depth of branding shall not exceed 3rd or 4th of the thickness of the dead tissue of the horn or hoof.
- Sedatives and pre-emptive and post-procedural analgesics shall be administered to animals.
- Alternative identification methods such as ear-tagging, ear-notching, tattooing and use of radio frequency identification devices shall be preferred for the identification of animal.

Freeze Branding: A freeze brand is super-cooled in liquid nitrogen stored in large vacuum flask.

- Freeze branding uses ultra low temperature to destroy the skin and hair cells that produce pigmentation. A freeze brand appears as white hair growing on the branded area.
- Irons are used for freeze branding are thicker, heavier and made of specific alloy for maintain the cold temperature.



- Place the iron in liquid nitrogen and leave it there until the vigorous bubbling stops. The iron is ready to use when frosting appears on the handle just above the liquid surface.
- Check the animals are properly restrained, remove the iron from liquid nitrogen shake well and press the animal firmly on the animal.

4. Nose Roping:

- Nose roping of an animal shall be permissible only as a last resort after exhausting methods to handle and restrain the animal by use of face halter, blind folding, and by adopting humane behavioral methods including offering treats such as molasses, groundnut cake and green grass, as well as verbal and physical cues such as calmly talking to gently stroking the animal.
- Sedatives and pre-emptive and post-procedural analgesics shall be administered to animals.
- Sterile instrument for piercing the nasal septum shall be used.
- Ropes made of natural fiber and smooth or non-abrasive material shall be used for nose-roping.

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