

Castration, Dehorning/Disbudding, and Docking

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Goal (learning objective)

Youth will learn why management practices of castration, dehorning (disbudding), and docking are important and how these practices should be properly performed.

Supplies

- Handout 1 - Castration, Dehorning, and Docking Equipment (enough copies for group)
- Handout 2 - Castration, Dehorning, and Docking Equipment Answer Key (one copy)
- Pens or Pencils (enough for group)

Pre-lesson preparation

- Make copies of Handouts 1 and 2.
- Work with county extension personnel to do farm visits of local producers to view castration demonstrations of all species
 - Try to incorporate a demonstration of dehorning tools while at the cattle and/or goat farm visit.
 - Inquire with the sheep producer to incorporate a tail docking demonstration.
- If farm visits and/or live animals are not available, visit with your local veterinarian for a visit and demonstration of tools (and procedures) for castration, tail docking, and dehorning.
- Coordinate and communicate site visit date and time logistics with parents.

Lesson directions and outline

Ask the youth to define castration, dehorning and docking. Have them share ideas of why livestock producers use those practices.

After the youth share their answers, review the following information with them:

Market livestock animals should be raised with the goal in mind of providing the consumer with a safe, wholesome, and enjoyable eating experience. Additionally, animals should be raised in a stress-free environment and provided with proper care. Animal health, carcass quality and consumer satisfaction can be positively influenced by proper castration, dehorning, and docking practices. For any of these management practices, care should be taken to minimize pain and suffering.

Castration: Castration is the removal of a male animal's testicles. This can be done in a non-surgical manner in cattle, sheep, and goats with the use of an elastrator. The elastrator places a very small but strong elastic band over the scrotum and above the testicles, cutting off the blood supply to the testicles. The testicles will generally slough off in a few weeks. Pigs' testicles are held tight to the body so they must be surgically removed. This can be done quite easily with a scalpel or sharp knife. Cattle, sheep, and goats can also be castrated surgically. Castration should be done at as young of an age as possible.

Castration improves meat quality. Uncastrated males tend to have a much stronger flavored meat. The meat is also generally leaner and drier, leading to decreased tenderness and lower consumer satisfaction. Castration can also make the animals much safer to be around as intact males tend to be more aggressive in their behavior towards other animals or humans.

Dehorning/disbudding: Horns on animals can and do cause bruises and other injuries to animals. Horns can also be a hazard to people and equipment. Dehorning/disbudding is the practice of removing an animal's horns or horn buds, depending on the age of the animal and the stage of horn growth. Dehorning/disbudding should be done between 7-10 days of age for goats and prior to 3 months of age for cattle. It should be pointed out that perhaps the most simple and effective method of dehorning is to select polled breeding stock (not always possible within some breeds and species).

Horns can be removed by using caustic paste, an electric dehorning iron, or with a mechanical dehorner (spoons, tubes, scoop type dehorner – all for use on cattle only). Caustic paste is placed on the horn bud. Care must be taken to not get the paste on yourself or in the animal's eyes. Electric dehorning irons are placed over the horn bud and burn the bud and surrounding tissue to “kill” the horn. For cattle, mechanical methods can be used. Care should be taken to keep the wound as clean as possible. Blood-stop powder should be on hand to help combat bleeding.

If you are unfamiliar with any of the dehorning/disbudding practices, you should have an experienced adult or your veterinarian teach you the proper technique.

Tail docking: Tail docking is a common practice in sheep and swine production. It involves removing a portion of the tail by either banding (elastrator) or cutting.

Tails are docked on sheep to prevent problems with fly strike. Fly strike is a condition where manure accumulates in the hair/wool of a lamb's tail to the point that it provides habitat for fly larva to develop. The larva then begin to eat away at the soft tissue surrounding the anus of the lamb. It is recommended that lamb tails be docked at the distal end of the caudal fold (American Veterinary Medical Association).

Some producers will dock the tails of pigs to prevent young pigs from chewing on each other's tails. Tail chewing can cause open sores and infection.

Conducting the activity (DO)

1. Distribute Handout 1 to members.
2. Have members work individually to complete the handout.
3. Check for completion, review answers as a group.
4. Do farm/site visits or demonstration of equipment.

What did we learn? (REFLECT)

- Ask: Why is castration important for meat animals?
- Ask: What are two methods used for dehorning?
- Ask: How can castration, dehorning, and/or tail docking be viewed as beneficial to the animal?

Why is that important? (APPLY)

- Ask: What is the real purpose of castration, dehorning, and tail docking? (Improved meat quality for the consumer while improving the health and safety of the animal and safety for the handler).
- Ask: Where else can you apply this same type of knowledge?

Resources

- Ohio State University Extension. (2011). Management Practices. Beef resource handbook (page 3-6 and 11-8 through 11-9).
- Ohio State University Extension. (2008). Herd Management and Diseases. Goat resource handbook (pages 79-83).
- Ohio State University Extension. (2011). Management Practices. Sheep resource handbook for market and breeding projects (pages 41-46).
- Ohio State University Extension. (2000). Baby Pig Management. Swine resource handbook for market and breeding projects (pages 21-1 through 21-10).
- Western Beef Resource Committee. (2010). Cow/Calf Management Guide. Cattle producer's library. CL749 and CL750.

HEALTH AND DISEASES: CASTRATION - HANDOUT 1
CASTRATION, DEHORNING AND DOCKING EQUIPMENT

Directions: Match the image to the description. Write the letter (of the tools listed on the right) next to the description/name of the tool in the list below.

1. Elastrator Bands _____
2. Electric Iron _____
3. Caustic Paste _____
4. Tooth Nipper _____
5. Barnes-Style Dehorner _____
6. Band Castrating Tool _____
7. Emasulcatome (Burdizzo) _____
8. Emasculator _____

A



B



C



D



E



F



G



H





9. This sheep demonstrates an example of a _____ tail.



10. These lambs have _____ on the tails to _____ them.



11. This is an example of a _____ male hog.

Directions: Use the terms listed below to answer questions 9 through 20.

Terms

- Dock
- Castration
- Testosterone
- 2 and 10
- Needle Teeth
- 3 and 21
- Testicles
- Boars
- Cryptorchid (used twice)
- Elastrator bands
- Short-docked
- Castrated
- 4 and 14
- Tainted
- 1 to 3

12. Clipping these in a newborn pig is necessary because piglets may bite each other or the sow's udder, leaving small cuts to become infected. _____.
13. Lambs between _____ and _____ days old should be all docked. And the rams or male lambs _____.
14. Castration of the male goat or buck kids usually occurs between _____ to _____ weeks of age.
15. Calves should be castrated between _____ and _____ weeks of age.
16. Castrated males have a better disposition and are more docile than males that have not been castrated because of decreased levels of the hormone _____.
17. The best time to castrate a pig is between _____ and _____ days of age.
18. _____, is the surgical removal of the two _____.
19. Pork from _____ or uncastrated male pigs at slaughter weight, may have an odor during cooking that is very offensive to many people. This is called a "boar odor" or a "_____ " odor.
20. An animal is considered a _____ because the testicle(s) failed to descend during development.

HEALTH AND DISEASES: CASTRATION- HANDOUT 2 (ANSWER KEY)

CASTRATION, DEHORNING AND DOCKING EQUIPMENT

Directions: Match the image to the description. Write the letter (of the tools listed on the right) next to the description/name of the tool in the list below.

1. Elastrator Bands _____ **H** _____

2. Electric Iron _____ **C** _____

3. Caustic Paste _____ **A** _____

4. Tooth Nipper _____ **F** _____

5. Barnes-Style Dehorner _____ **G** _____

6. Band Castrating Tool _____ **B** _____

7. Emasulcatome (Burdizzo) _____ **D** _____

8. Emasculator _____ **E** _____

A



B



C



D



E



F



G



H





9. This sheep demonstrates an example of a SHORT-DOCKED tail.



10. These lambs have ELASTRATOR BANDS on the tails to DOCK them.



11. This is an example of a CRYPTORCHID male hog.

Directions: Use the terms listed below to answer questions 9 through 20.

Terms

- Dock
- Castration
- Testosterone
- 2 and 10
- Needle Teeth
- 3 and 21
- Testicles
- Boars
- Cryptorchid (used twice)
- Elastrator bands
- Short-docked
- Castrated
- 4 and 14
- Tainted
- 1 to 3

12. Clipping these in a newborn pig is necessary because piglets may bite each other or the sow's udder, leaving small cuts to become infected. NEEDLE TEETH.

13. Lambs between 4 and 14 days old should be all docked. And the rams or male lambs CASTRATED.

14. Castration of the male goat or buck kids usually occurs between 1 to 3 weeks of age.

15. Calves should be castrated between 2 and 10 weeks of age.

16. Castrated males have a better disposition and are more docile than males that have not been castrated because of decreased levels of the hormone TESTOSTERONE.

17. The best time to castrate a pig is between 3 and 21 days of age.

18. CASTRATION, is the surgical removal of the two TESTICLES.

19. Pork from BOARS or uncastrated male pigs at slaughter weight, may have an odor during cooking that is very offensive to many people. This is called a "boar odor" or a "TAINTED" odor.

20. An animal is considered a CRYPTORCHID because the testicle(s) failed to descend during development.