**Pre-operation Considerations**

1. Before dehorning procedure is undertaken the animals in question should be examined both at a distance and a physically. This ensures that the animals are healthy and not sickened with disease that will hinder wound healing. The physical examination would ensure that the animal in question has horns or horn buds before the dehorning procedure begins.
2. The preferred age at disbudding is between 2 and 6 weeks of age. Small horn-buds are easier to remove completely, leaving only a small wound; larger buds may require more than one attempt. Also, the amount of sedative used can be less compared to older animals, with a more predictable response.
3. The dosage of each drug which will be used during the procedure should be calculated based on the concentration of the drug, the dose and the weight of the animal. This ensures that the correct dosage is given and an overdose is less likely to occur. Example, the toxic dose for lidocaine (used as local anesthetic) was calculated to be 60 ml. At the beginning of the procedure 5mls of lidocaine was used to block the corneal nerve, however the horn was not desensitized and an additional 5mls were injected at each site. This brought the total volume to 10mls per site. This was well below the toxic dose.
4. The dosage for the emergency drugs which will counteract the effects of the primary drugs used during the procedure should also be calculated, to enable quick reversal of the primary drugs used in the procedure in the event that an overdose occurs.
5. Ensure proper local anesthetic procedure is done.
6. All the proper equipment and tools needed during the procedure should be cleaned and readily available.
7. The appropriate instrument should be used based on the size of the horn or horn bud.
8. In the event that the method or instrument use will result in hemorrhage, the area should be cauterized.
9. Calves exposed to rain within 48 hours of disbudding are much more likely to develop problems with wound infections than dry calves. If rain is predicted, disbudding should either be delayed or calves should be housed in suitable conditions (i.e. dry and clean) during and for the first 48 hours following disbudding.
10. Feeding milk to calves within 3-4 hours, either side of sedation, but especially prior to sedation, can lead to stasis of milk in the gastro-intestinal tract with subsequent development of tympany. The veterinarian must make the owner/ manager aware of this and make sure that on the day of disbudding the calves have not been fed within 3 hours prior to the procedure.
11. Working with 230 volt operated cautery instruments, in possibly damp conditions, and using extension cords can pose dangers to operators and animals. A current-breaking device installed in the circuit at point of power draw off is recommended. Alternatively, gas heated instruments can pose dangers in terms of setting fire to flammable materials and cause burns to humans and animals. Due care is required.
12. Herd owners/managers need to be informed of possible delayed hypersensitivity reactions in calves to xylazine. Details of incidence, symptoms and prophylaxis need to be conveyed prior to use.
13. The herd owner/manager should also be informed about the post operation care and complications that may arise after dehorning procedure.