## BASIC STEPS TO PREVENT MORTALITIES IN WILDLIFE

Dr JC Kriek

A few years ago, most game auctions consisted of wildlife offered for sale in bomas (live sales). Recently, a large percentage of wildlife species are sold on catalogue, and only then are these animals captured and transported to the buyer's property where they are offloaded without having to stand in a holding boma. This is due to modern technology (i.e. animals can be identified with high-definition photos, ear tags and microchip data) where animals are sold on camera. This process eliminates unnecessary stress being placed on the animals.

Before the advent of modern technology, thousands of animals died in capture bomas. Mortalities of up to 80 per cent were recorded at many auctions (live sales).

Catalogue sales, although reducing stress on the animals, also have their own limitations, as in most cases potential buyers want to see the animals they are purchasing.

I personally think the ideal is to have a catalogue auction but to also display some animals in bomas to exhibit the quality of animals presented.

## How can we minimise mortalities in bomas?

Anybody can capture wildlife but not anybody can capture wild animals, deliver them to the end user alive and well, and guarantee that they will survive and breed on the buyer's property.

Game capture entails not just step A of the alphabet – it entails step A all they way to step Z and each step is of the utmost importance:

- 1) When to capture: If it is too hot or too cold, do not capture (heat kills more animals than cold).
- 2) Proper tranquillisation is extremely important (stress is the main reason why wild animals die).
- 3) Darting with the full combination of immobilising drug plus tranquillisers in the dart is of the utmost importance to prevent stress and losses (e.g. abortions in certain species, especially gemsbuck, which I believe is due to inadequate tranquillisation when animals are darted).
- 4) Net gunning is cheap but I think that the shock and stress this causes an animal is not worth the few rands one saves on helicopter and drug costs.
- 5) Chasing an animal until it is tired before darting or capture is bad news (quick knockdown and quick recovery is the best). Capture myopathy occurs when an animal exerts itself.
- Transportation of game properly ventilated, white vehicles with ample space for animals to turn in and soft bedding are important.
- Some species can be loaded in groups while others, such as roan, should be loaded separately in single compartments. Sable from the same breeding group can be loaded together but rather load them in separate compartments because of their value. Be careful of overdosing with tranquilisers; especially sable are very susceptible to this.

Stress should be kept to a minimum because it causes pathological changes in wildlife (or could lead to that). This may not be evident immediately but the effects thereof could cause the death of the animal at a later stage. Capture myopathy, for example, could manifest itself in the form of damage to the heart muscle, which could result in heart failure later in life.

Proper boma management is often overlooked when one is busy with capture for an auction. Animals take three to four weeks to get used to their new surroundings and only then will they eat properly and pick up the body weight lost in the first two weeks after capture. Statistics for animal mortalities indicate that animals moved within three to four days post-capture tend to survive. Animals that have lost 30 per cent of their body weight (7 to 14 days post-capture and kept in a boma) have a higher mortality rate (even up to 80 per cent, depending also of course on the capture method. Animals that pick up the lost body weight and that are kept in a boma until they are in good physical condition tend to survive the translocation from boma to final destination.

Make sure that an animal's physical condition is close to 100 per cent when releasing it. All animals will lose weight while adapting to a boma after capture, and then again once moved from the boma to a new environment, as the rumen flora will need time to adapt. An animal in 100 per cent condition can easily take a 30 per cent body-weight loss. Inadequate boma management is the main reason why so many live-auction animals die.

All new arrivals of game introduced to a property must be carefully monitored to see if they get to the water point. It is very important to put water out in the corners (with some food)until one is sure that animals are seen at the permanent water points. I recently witnessed the death of a beautiful pregnant sable cow that died of thirst because a manager did not do his job; he did not check that the animals were watered and fed after offloading.

Offloading must be done at least 200–400 m from boundary fences, as many animals have died or have been injured when running into game fences.

Do not offload animals into a small, fenced area unless the fence is solid (so that they cannot see through the sides of the fenced area); many animals have injured themselves by running through a fence.

In summer, travel at night when transporting animals. In winter one can travel during the day as the nights might be too cold. It is always wise to administer antibiotics (e.g. Draxin, penicillin, tetracycline, etc), especially if the weather report predicts a cold spell or cold front. Sable and nyala are especially susceptible to pneumonia during cold spells. Routine vaccinations of wildlife will definitely prevent many deaths. Sable are quite prone to to clostridial infections, buffalo to pasteurella, etc. Treat for external and internal parasites while you have the animal under your control.

If animals that you bought come from an extensive farming system and you want to introduce them to an intensive system, it would be wise to keep them in a boma until they know your feeding regime. Animals that are used to feeding (intensive system) and are then taken to an extensive system should be weaned off the feed very slowly to allow the rumen time to adjust to the new management system.

Newly introduced animals must be kept on the same feed that they are used to. Once they have settled, the ration can be gradually changed to the new feed.

Most of the points mentioned are logical but I have seen many mortalities caused by basic mistakes.

## Introduction of new arrivals

Be careful of introducing new adult animals to an established herd (specifically sable, roan and wildebeest), especially in a small paddock system. Alpha cows can cause serious injury to and death of new arrivals. With these species it is advisable to introduce females before sexual maturity, thus heifers between 12-16 months. Older than that will increase the risk substantially month to month. When the area is larger than 200-300ha and there are at least 2-4 new animals being introduced it drastically lowers the risk. Another alternative is to have the animals walking separate but in adjacent camps so that they can gradually get used to each other. After a few weeks a gate may be opened so that animals can move to and from the different areas. It is also a good idea to put pipes on the dominant females before introducing new animals or even consider tranquilising the original animals. The practicality all depends on the size of the area and herd.