

Old Chapel Veterinary Clinic

Reg: FCL04/6527

Dr Peter Caldwell

BSc agric (anim sci) BVSC

SAVC Reg: D99/4246

SAVA Reg: R0156

RCVS Reg: 6193184

999 Hertzog Street
Villieria
Pretoria
0186

Tel: 012 331 8279

Cell: 082 2255837

Fax: 012 331 7896

email: peter@oldchapelvet.co.za

Veterinary Aspects Relating To African Wild Dogs in Bomas

Wild dogs are highly social animals that occur in packs and are fairly unpredictable, excitable and very aggressive when stimulated. It is preferable to keep wild dogs in groups in properly designed bomas rather than individually. Care must be taken to not overcrowd a boma. Captive carnivores require specialized handling and therefore captive breeding or holding facilities need to be equipped with adequate handling facilities appropriate to the species.

A boma should consist of an area of no less than 1 hectare enclosed with a 60mm diamond-mesh fence. No more than five wild dogs should be placed in a 1-hectare boma. The fence should be about 2m high with a broad overhang towards the inside of the boma. Wild dogs tend to jump high and climb fences and for this reason it is ideal to electrify the top part of the fence. The base of the fence should also be well anchored or cemented in because they bite and pull at fences. The boma should preferably have natural shade like trees, shrubs and bushes because wild dogs tend to jump up and bite and chew shade cloth or netting.

The boma should be designed to enable the capturing of the dogs in a corner camp. A cage trap should be placed in the entrance between the main enclosure and the corner camp. It is important to ensure that the dogs cannot jump over the cage trap when moving into or out of the corner camp. The advantage of such a design is that dogs do not need to be chemically immobilised or sedated when capturing and boxing them in crates for transport. Wild dogs travel well in properly designed crates that are dark enough but with sufficient ventilation. Not making use of sedation or long acting tranquillization when transporting wild dogs reduces the risk of hyper or hypothermia, blood pressure problems and also reduces costs. A further advantage of having a corner camp is that if a procedure needs to be done on an individual dog, it can be done in the corner camp with a fence separating that dog from the rest of the group. The immobilized dog can be woken up in the corner camp and remain there until fully awake and aware. This minimizes the risk of the other dogs in the group attacking the dog whilst still groggy and ataxic from the sedative, yet the dog is still in the presence of the other dogs.

It is also advisable to have a den sunken into the ground and even have the den concreted.

Fresh water should always be available in the boma. To avoid having to go into the boma, water should preferably be supplied in a sunken trough that can be filled by means of an underground pipe system. The water trough should be large enough for the dogs to bathe and sit in because they cool down in this way especially after being excitable.

Feeding must take place in the corner camp on a cement feeding slab that must be cleaned regularly. Wild dogs are not fussy eaters and can even adapt to eating pelleted dog food

soaked in water with some red meat mince (160 to 180 grams 2x/day) out of large triangular flat bowls. They can either be fed 1kg to 1,5kg of meat per dog per day, or 3kg per dog every three days. The amount of food to be fed also depends on the physical and breeding activity of the dogs. Wild dogs should not be overfed to avoid them becoming overweight.

Supplements should be given depending on what the dogs are fed and how frequently they are being fed.

Purposes for which carnivores need to be handled in captivity include -

- a) Vaccination, deworming and ectoparasite control;
- b) Venipuncture for diagnostics and research;
- c) Treatment for a disease condition;
- d) Identification purposes (scanning microchips);
- e) Movement between camps;
- f) Transportation; and
- g) Breeding.

Long-term capture and holding in a boma involves strict control of internal and external parasites and appropriate vaccination protocols. Wild dogs are highly susceptible to the distemper virus and rabies virus and are fairly resistant to most of the other canine diseases. When dogs are placed in bomas, depending on how long they will be held, they need to be vaccinated against mainly canine distemper and rabies. A vaccination protocol that can be followed is making use of a live freeze-dried recombinant pox virus vaccine, Recombitek C4/CV vaccine (Merial) which includes a recombinant canarypox vector of the canine distemper virus, modified live canine adenovirus type 2, canine coronavirus, canine parvovirus and parainfluenzavirus type 2 therefore it is a modified live canine distemper virus, adenovirus type 2, canine coronavirus, canine parainfluenzavirus type 2 and canine parvovirus vaccine. An inactivated rabies vaccine like Nobivac rabies vaccine (Intervet) must also be used. At 8-10 weeks, 12-16 weeks and 18-20 weeks of age and yearly thereafter I vaccinate Wild Dogs with Recombitek C4/CV by Merial Laboratories. At 12-16 weeks of age I give them a 1ml subcutaneous injection of Intervets Nobivac rabies vaccine. I give them boosters of these vaccines yearly. Canine distemper virus (CDV) is a morbillivirus known to cause morbidity and mortality in African Wild Dogs. Early vaccine studies include annual vaccination with the univalent and multivalent canary pox-vectored recombinant distemper vaccine.

The following endo parasite control program can be used in wild dogs:

- a) Panacur 5% solution (Fenbendazole 5%) used at 50mg/kg once a day for 3 to 5 days, use for 5 days if suspect Giardia, (50mg/kg) put in meat;
- b) Panacur powder 4% m/m (Fenbendazole) at 50mg/kg in meat;
- c) Dectomax (Doramectin 1%) 1ml/ 20 kg (0.5mg/kg) subcutaneously;
- d) Drontal cat tabs (Praziquantel, pyrantel pamoate) 1tab/4kg;
- e) Quantel (Praziquantel and fenbendazole) 1tab/10kg; and
- f) Nemex 2.5g/2kg body mass for juveniles less than 6 weeks old.

The following ecto parasiticides can be used in wild dogs:

- a) Fipronil (Frontline Merial) pour on or spray on;
- b) carbaryl 50% powder;

c) flumethrin (Bayticol Bayer) 2% spray.

Because wild dogs are very aggressive and do not submit when sticks are used to control them in a cage trap, they need to be chemically immobilized if any procedures need to be done on them. When it is necessary to chemically immobilize a captive wild dog, a pole syringe should be used to sedate the dog captured in a cage trap. A dart gun should be used if the dog is not in a cage trap. A sedated wild dog should be kept out of direct sunlight and the dog's vital signs should be monitored. Pregnant and lactating females should be handled as little as possible.

A specific drug protocol must be used to immobilize African Wild Dogs. Medetomidine and ketamine should be used in combination when immobilizing a captive wild dog. The dosages are dependant on the procedure required, the age and medical condition of the animal, as well as stress and climatic conditions. I have been using a combination of medetomidine and a very low dose of zoletil (zolazepam, tiletamine) with a lot of success recently. The latter drug combination is normally used in wild African Wild Dogs when darted from a helicopter or in the field. They go down quicker and the drug is absorbed very effectively. The drug should always be reversed by administering atipamazole at the correct doses and one should never leave the dog unless he is awake and standing, which takes about six to fifteen minutes.

Once the dog has been darted or sedated a general health check must be done, including a clinical evaluation of temperature, pulse and respiration, body condition score, age, dental condition, mucosa evaluation, capillary refill time, skin and hair condition and tick burden. Blood must also be taken to check for viral diseases.