## Farm Production & Practice

Ministry of Agriculture and Fisheries



# **Deer** 317 Capture

Possession and Use of Fentaz

Fentaz is the only drug deer capturers may use — and then only under licence and only to capture feral deer.

During deer capture, Fentaz is fired into an animal by a projectile dart, and eventually immobilises the deer.

In captivity it is administered in lower doses as a standard intramuscular injection, by or under the supervision of a veterinarian.

Licensed users of Fentaz should refer to AgLink FPP 417 for a summary of the legislation relating to drugs and deer capture.

#### The drug

The name "Fentaz" is a contraction from the two chemicals that compose it: each ml of Fentaz contains 10 mg fentanyl citrate, and 80 mg azaperone.

Fentanyl citrate is a narcotic analgesic, i.e., through its use an animal cannot feel pain, but remains conscious.

The chemical gives relief from pain, acts rapidly for a short time, and has little effect on the heart and circulation at normal doses.

As it has an activity 700 times greater than pethidine and 100 times more than morphine it is extremely dangerous if accidentally administered to man or animal.

Azaperone is a neuropleptic, i.e., it alters the animal's mental attitude. It is a powerful anti-traumatic shock agent, mainly because it prevents blood vessels constricting.

It acts rapidly, has a peak effect for 2 hours, and an after effect from 6–8 hours. It gives rapid consistent sedation and has a reasonable margin of safety.

Overdose side effects, such as salivation and loss of willpower, may be completely reversed with the antidote.

#### Dose rates

To tranquillise wild deer so they may be captured, licensed hunters can administer Fentaz through a projectile dart fired from a tranquilliser gun. The dose rate should be 1 ml/22.5 kg liveweight.

At higher doses the drug causes respiratory depression

and muscle rigidity.

When deer are semi-domesticated, a veterinarian may administer it through a standard intra-muscular injection at half the dose rate, i.e., at 1 ml/45 kg liveweight.

A red deer stag weighs 100-120 kg, and a red deer hind weighs 70-110 kg.

#### Antidote

The narcotic effects of the fentanyl citrate component are readily neutralised by an injection of 1.25 ml Nalorphine (Lethidrone)/22.5 kg liveweight, or 25 mg/ml of Fentaz used.

#### When to use Fentaz

Fentaz will immobilise deer:

- · During capture,
- · When a veterinarian is repairing an injury to a deer.

It will also give pain relief and will sedate deer.

When semi-domesticated deer need surgery, a veterinarian may use Fentaz before and after the operation.

It helps induce and maintain anaesthesia, and permits rapid recovery from anaesthesia. After an operation it will sedate deer and give pain relief.

A veterinarian can use it in emergency treatment if a deer becomes acutely agitated or develops acute pain. An almost immediate onset of deep pain relief and mental sedation makes further treatment easier.

As Fentaz seems to have little effect on vital organs, it is suitable for older and poor risk patients, such as:

- Those marginally conscious pre-operatively;
- Those with multiple injuries:
- Those so sick and run down they could not otherwise withstand an operation, or could be treated only with local anaesthetics.

#### Capturing wild deer

To immobilise wild deer by projectile dart, deer capturers should use the recommended dose of 1 ml/22.5 kg liveweight.



Aim for the neck or rump as both areas are ideal for drug absorption. Remember that the backbone divides both the neck and rump, and may deflect a dart fired into it

When a dart is fired directly into a muscle, Fentaz takes effect in from 10–15 minutes. It may take longer if a deer has become excited or run some distance, or the dose may need to be increased.

A deer hit by a dart runs to a standstill but rarely falls to the ground. It remains unaware of people around it, and unconcerned about restraints imposed upon it. After capture the narcotic effects of fentanyl citrate can be reversed by giving the antidote.

### Adverse effects of capture

Bloat is one of the occasional side effects. Another, erratic breathing, is more prevalent in animals excited at the time the dose is administered.

If animals show signs of poor respiration, handle them carefully. Veterinarians can help by using such prescription poisons as antihistamines

At high altitudes, captured deer may suffer from temperature shock; although the administration of an antidote soon after capture minimises such ill effects.

Capture during pregnancy may be unsuccessful because of chemical changes in the hind's body processes and the effect of the drug on the developing foetus. Abortion is almost certain in the later stages of pregnancy.

Hinds should not be captured after the third month of pregnancy, that is usually, not after July, if they are to live

#### Danger to humans

Wear rubber gloves when handling Fentaz as it is quickly absorbed through the skin and causes headaches, sinus pain, and womiting within 10 or 15 minutes. If accidentally spilt on the skin, wash the skin quickly and thoroughly with cold water

If Fentaz is accidentally injected into a human, inject 5...10 mg Lethidrone into a large muscle mass or under the skin. If necessary, repeat this at 15-minute intervals until 40 mg have been given in total.

Alternatively, inject five ampoules of Narcan (2 mg) into a muscle. Repeat this 30 minutes later if necessary.

In all cases, contact a doctor quickly, as this product can rapidly cause death.

Tie to the patient a note stating the treatment given.

#### Terms of Fentaz licences

- Licences are granted only for the capture of feral deer.
- · Fentaz is not to be used on farmed deer.
- Fentaz is to be supplied only in darts filled by a named veterinarian.
- Unused darts are to be returned after each operation.
- Darts must be kept securely locked in an approved container.
- A record of receipt and use is to be kept.
- The licence is not transferable nor is the drug.
- Infringement of the terms of the licence results in cancellation of the licence or in prosecution.



B.G. Johnston Veterinary Staff Officer (Boards) Animal Health Division Wellington