



UNDERSTANDING POISONING OF PET ANIMALS WITH CARBAMATES AND ORGANOPHOSPHATES

Introduction

A variety of agricultural insecticide products are utilised daily to control insects in crops as well as in our homes and gardens. Various products are also registered for the control of external parasites on dogs, cats, horses and livestock. A range of chemical active ingredients, including organophosphates and carbamates, are included in products for agricultural and household use as well as in flea collars and other topical tick and flea control products.

Misuse and overexposure result in animals and humans being poisoned. Many pet animals are targeted annually and die as a result of toxin misuse for criminal intent such as house breaking and theft.

Carbamates and organophosphates are related toxins that affect the nervous systems of animals and humans, interfering with conduction of impulses to the heart, muscles and intestinal tract.

What do these toxins look like?

A large variety of commercially formulated products are available on the market e.g. impregnated flea collars, spot-on preparations, liquid dip preparations, powders and aerosols for household use, plant and crop sprays, and granules for agricultural use.

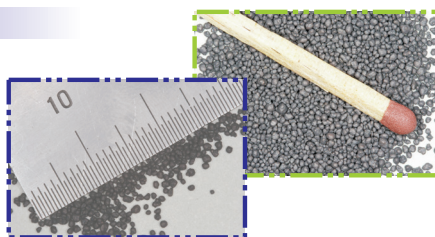
The most commonly perceived product being misused for malicious poisoning contains the active ingredient aldicarb, which is formulated as small black granules that resemble poppy seeds. However other granular products may resemble the aldicarb granules and in some cases differently coloured granules may be coloured black by criminals.

Precautions

If an animal is suspected to be poisoned, the environment should be searched for bait, usually meat-based, which contains these granules. Vomit and/or fur soiled with vomit or saliva should also be examined for the presence of the granules. Ensure that children and other pet animals are kept away from the area suspected of being contaminated with poisoned food or body fluids.

What are the signs of poisoning?

- Salivation
- Muscle tremors
- Vomiting
- Diarrhoea
- Difficult breathing
- Seizures
- Weakness and paralysis
- Slow heart rate
- Small pupils



How should a poisoned animal be handled?

The poisoned animal is a potential source of human overexposure. Avoid direct contact with vomit, other body fluids or bait potentially containing toxin. The animal should be wrapped in a blanket to avoid human exposure to toxin, to calm the animal and keep it warm. Any skin that comes into contact with the toxin should be washed immediately. Use rubber or plastic gloves to protect yourself and ensure that you protect your eyes.



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Animal Health



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The animal should be removed from the source of exposure and taken to a veterinarian as soon as possible. Ideally, vomit or bait containing suspicious material should be collected into a plastic bag without touching the toxin. This sample should also be taken to the veterinarian for visual identification and submission for chemical analysis if necessary. Any packaging of products used on animals or in and around the house should be taken to the veterinarian to assist in the correct diagnosis and treatment of affected animals.

What treatment is required?

Veterinary treatment is required as soon as possible, as carbamate or organophosphate toxicity usually results in rapid death. The veterinarian will likely hospitalise the pet to administer medication and enable monitoring.

Once a pet returns home after successful veterinary treatment it should still be monitored for further clinical signs as toxins could be recycled and reabsorbed from the intestines causing recurrence of clinical signs. If this occurs, the animal should be returned to the veterinarian immediately. Carbamate and organophosphate based products should not be used on affected animals for at least six weeks after recovery.

Unfortunately survival is not guaranteed after exposure to toxin, but early treatment and an aggressive treatment regimen could improve the chance of survival.

How should contaminated material be disposed of?

Home owners may dispose of toxins and contaminated material on their properties by proper sweeping and picking up toxin granules and bait, and washing paving with household detergents. Household detergents such as dishwashing liquid should be used as the toxins are generally fat soluble. Any liquid spillage, including vomit, should be sponged up and the area washed. All the toxic product and contaminated materials, including clothes, should be placed in plastic containers (e.g. double plastic bags), clearly marked as toxin, and your vet will advise on how to dispose thereof. Precautions should be taken to avoid any contact with the toxin. Do NOT use pool acid or bleach when cleaning affected areas.

Mowing the lawn will allow the lawnmower to pick up any granules, which can then be properly disposed of.

In cases of severe contamination the services of a qualified de-contamination organisation should be utilised to clear the respective areas and to dispose of contaminated materials at an accredited depot.

How should deceased animals be disposed of?

The bodies of dead animals should be incinerated as incineration temperatures will destroy the toxin. If incineration facilities are not available the animal should be buried at least 1 metre deep, away from food and water supplies. Cover the dead animal with lime or soda ash before covering with soil.

How can poisoning be prevented?

- Rigorous application of control measures restricting access to toxins, to limit criminal and malicious poisoning
- Avoid using preparations on animals if they are not registered for animal use
- Do not use dog products on cats or livestock preparations on dogs or cats
- Do not combine products in an attempt to improve efficacy
- Always follow label directions for use

Useful contacts:

- Bayer CropScience Tel: 011 921 5252
- Bayer Animal Health Tel: 011 921 5740
- Nashua Pesticide Helpline Tel: 082 820 6223
- EMS (Emergency Medical Services) Tel: 0800 111 9900
- Tygerberg Poison & Drug Information Centre Tel: 021 931 6129
- Griffon Poison Information Centre Tel: 082 446 8946
- South African Poison Information Centre Tel: 021 689 5227
- SAP CrimeStop Tel: 08600 10111
- Rapid Spill Response 24 Hr Tel: 0861 113 467 or 08001 1 RAPID
- Idexx Laboratory Pty Ltd Tel: 011 803 3001/2/3

Acknowledgement: Dr Mirinda van Schoor, BVSc (Hons), MMedVet(Med)

