Department of Agriculture and Fisheries
Biosecurity Queensland

Invasive animal control

1080

Background

1080 is a very useful pesticide for the control of invasive animals and has been used throughout Australia since the early 1960s.

1080 is a species-specific pesticide available for invasive animal control in Australia. In Queensland, 1080 is registered or used under permit for control of the invasive animals wild dogs, feral pigs, foxes, feral cats and rabbits.

1080 is widely used in Australia to protect agricultural production and native flora and fauna from the impacts of invasive animals. The use of 1080 in some conservation areas allows the continued survival of rare and threatened wildlife and assists in the reintroduction of species into areas where they have previously been locally extinct.

If 1080 were not available for use to control vertebrate pests, many less specific and less humane products may be used in an irresponsible way.

Queensland Government

Properties

Some of the properties of 1080 include:

- 1080 occurs naturally in about 35 species of Australian plants, such as *Acacia georginae* (gidgee), *Gastrolobium* spp. (heart leaf poison bush) and *Oxylobium* spp. (box poison bush). Consequently, native animal species are generally less susceptible to 1080 poisoning than introduced species
- 1080 is water-soluble and is readily broken down by naturally occurring bacteria and fungi. It therefore does not cause a build-up of toxic residues in soil, water or plants, nor does it bioaccumulate in organisms
- 1080 can be found in minute quantities in such common substances as guar gum and tea.

Safety information

When undertaking a baiting program, to minimise the risk to non-target species, the most target-specific toxin should be selected. Of the toxins currently registered and available, 1080 is the most target-specific pesticide for controlling introduced invasive species in Australia.

To further minimise non-target exposure, the following steps are recommended:

- bury or secure baits
- mark the position of baits so that uneaten baits can be collected and destroyed at the end of a poisoning program
- use baits of suitable size and material that only attract, and will be consumed by, the target species
- use only as much bait as necessary
- use an the smallest dose rate that is effective
- expose baits for the shortest possible time
- place baits in locations and in a manner that limits access to the target species
- time baiting so as to lessen exposure to other potentially susceptible species.

Availability of 1080

1080-poisoned fresh meat baits can only be supplied by State or Local Government Officers authorised under the Health (Drugs and Poisons) Regulation 1996 and only for the purpose of controlling invasive animals. Commercial manufactured baits may also be supplied by these Government Officers.

Additionally, an individual landholder may apply to Queensland Health for an approval to obtain, possess and use commercially manufactured 1080 baits and 1080 capsules for use in Canid Pesticide Ejectors. An approval holder can purchase these products from an appropriately licensed S7 retailer.

Supply from an S7 retailer under a Queensland Health approval

You can apply to Queensland Health for a Section 18(1) approval for fluoroacetic acid (1080) baiting products in accordance with the Health (Drugs and Poisons) Regulation 1996.

This approval process is limited to commercially manufactured 1080 baits and 1080 capsules for use in Canid Pesticide Ejectors and allows you to purchase these products from an appropriately licensed Schedule 7 retailer.

An approval will not be granted for properties less than 20 ha in size and you must show evidence that you have completed two chemical use competencies:

- AHCCHM303A—to prepare and apply chemicals (formerly RTC3704A)
- AHCCHM304A—to transport, handle and store chemicals (formerly RTC3705A).

This approval will also allow you to purchase commercially manufactured 1080 baits from an Authorised Officer where this service is available. 1080 capsules for use in Canid Pesticide Ejectors cannot be purchased from an Authorised Officer and must be purchased from a licensed Schedule 7 retailer.

Requirements for use

The use of 1080 is subject to strict regulatory controls as required by the Health (Drugs and Poisons) Regulation 1996, administered by the Queensland Department of Health. Baits or 1080 capsules are supplied with written instructions which must be adhered to. These written instructions will include the following mandatory requirements:

- baits are to be used for no other purpose whatsoever other than for the destruction of wild dogs, feral pigs, foxes, feral cats and rabbits
- only lay baits on the land as described in the written instructions (Deed poll undertaking in relation to the possession and use of prepared baits or individual Queensland Health approval)
- do not lay baits on any stock route or reserve for travelling stock without local government approval
- do not lay baits within 5 m of a fenced boundary
- do not lay baits within 50 m of the centre line of a declared road
- do not lay baits within 20 m of permanent or flowing water bodies
- do not lay any baits within 150 m of a dwelling
- owners or their agents must give at least 72 hours notification prior to laying baits to all neighbours whose property adjoins the property of the proposed baiting. Adjoining properties are properties which share a common boundary and properties which are on the other side of a road or waterway adjacent to the property of the proposed bait site
- warning signs must be placed at all entrances to the property and at the extremities of the property boundaries fronting a public thoroughfare. Warning signs must be erected immediately before baiting commences and left in place for one month after the baits have been laid. Owners undertaking an extended baiting program should display permanent signs for the duration of the baiting and should re-notify neighbours as above at six-monthly intervals during the life of the program

- wild game harvesters should also be notified of baits being laid for at least 28 days after the program as they are required to declare that they have not removed feral pigs from areas where baiting has occurred.

Additional requirements can be implemented to manage high risk 1080 baiting. All written instructions must be adhered to.

Selectivity of 1080

There is considerable variation in susceptibility between species of animals. Dogs and foxes are the most susceptible of all animals to 1080. In general, birds show considerably more resistance than mammals. Cold-blooded animals such as reptiles and fish are the most resistant.

Common myths about 1080

"1080 kills everything—native animals as well as introduced invasive animals."

Australia's native mammals, birds and reptiles have developed much higher tolerance to 1080 than introduced animals, due to their evolution with naturally occurring 1080 in some native plants. The dose rates used in invasive animal control, coupled with responsible baiting practices, mean that native animals are minimised infrequently/rarely killed.

If non-target animals are suspected of dying as a result of a 1080 baiting program, Queensland Health should be contacted so that it can be properly investigated and, where possible, the appropriate tests undertaken.

"1080 kills only domestic dogs, it doesn't kill wild dogs."

All canines (wild dogs, domestic dogs and foxes) are equally susceptible to 1080 poison. This is why it is important that domestic dogs are restrained when baiting programs are being carried out.

"1080 builds up in the soil and in waterways."

Naturally occurring bacteria and fungi found in soil, water and bait materials readily break down 1080. It therefore does not cause a build-up of toxic residues in soil, water or plants. 1080's persistence in the environment is short-lived but depends on rainfall, temperature and amount of bacteria present.

"What if a invasive animal is poisoned with 1080 and another animal eats it? Will it affect the second animal?"

This depends on the dose used and the amount of bait consumed by the first animal, the tolerance of the second animal, the amount the animal has consumed, what part of the animal is consumed (e.g. the stomach contents will contain more 1080 than other organs and flesh), and how long the poisoned animal has beed dead for. Unlike some poisons, 1080 degrades rapaidly,does not accumulate in the food chain and cannot keep on killing.

"Baiting just scares the invasive animals away. After a few months they all come back again."

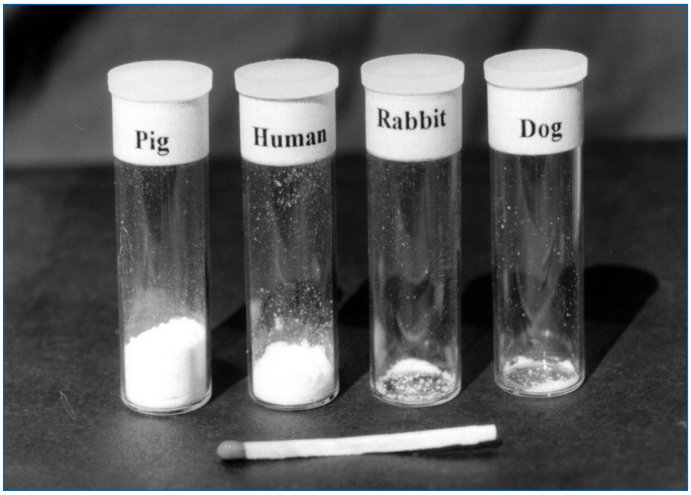
Done appropriately, baiting removes most of the target animals living in the baited area. However, after a period of time, dispersing animals from surrounding areas repopulate this vacant area. This is why it is important to reduce immigration by carrying out regular coordinated control programs.

"There is no effective treatment or antidote for 1080 poisoning in humans."

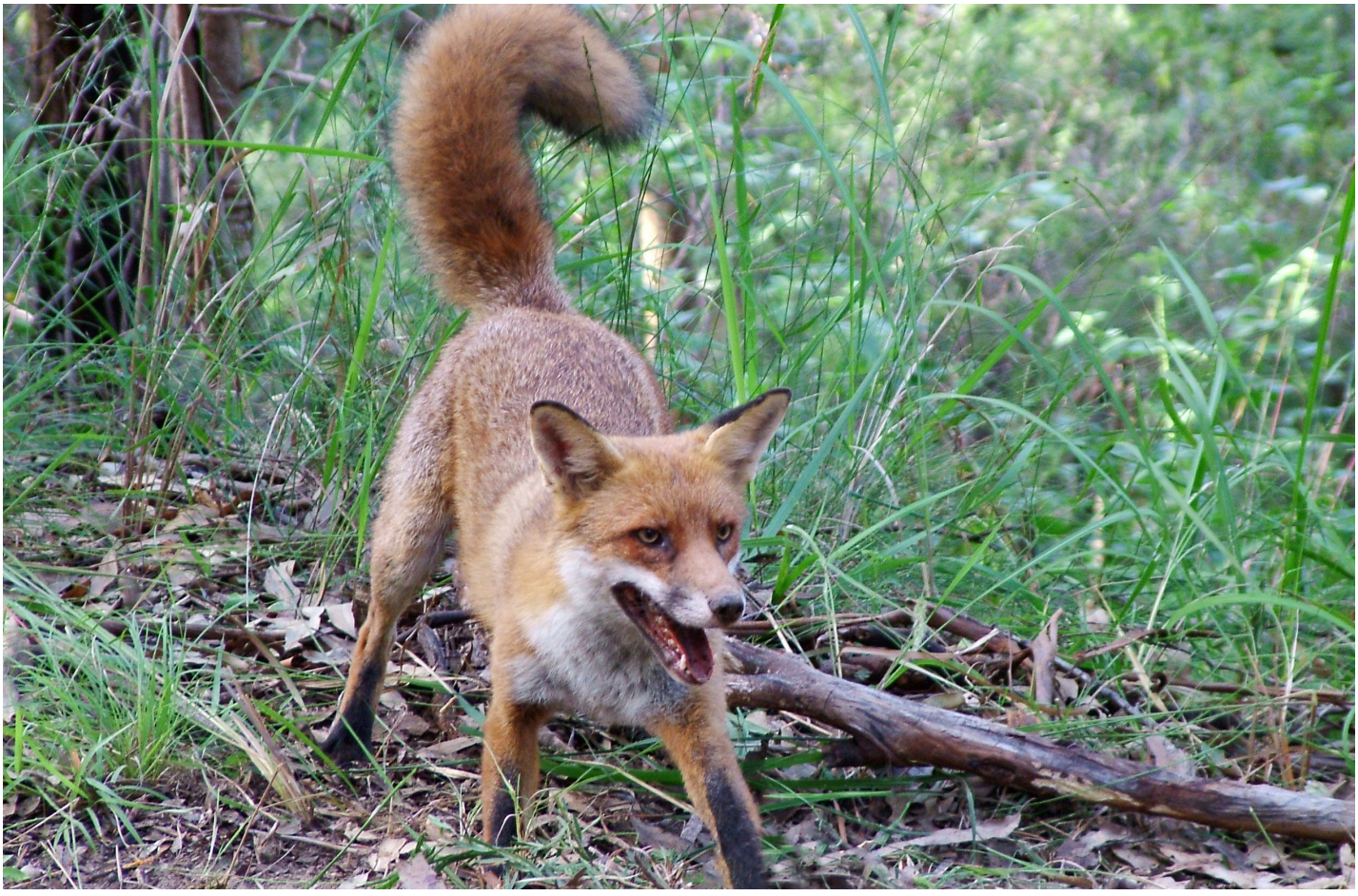
There is no specific antidote for 1080 but a range of treatments may aid recovery. As with many poisons, these treatments are effective only when used soon after ingesting the poison. Emptying the stomach can get rid of most of the poison in the early stages. Sedatives and barbiturates, as well as life support measures, have also been used to give the body time to detoxify the 1080.

Further information

Further information is available from your local government office, or by contacting Biosecurity Queensland on 13 25 23 or visit www.biosecurity.qld.gov.au.



Vials of 1080 powder showing the amount of chemical required to destroy various species



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