



CENTRE FOR
INVASIVE SPECIES SOLUTIONS

NATIONAL REGISTRATION WITH THE APVMA OF A FERAL CAT BAIT – STAGE 1

FINAL REPORT FOR PROJECT P01-T-004

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OCTOBER 2022

Prepared for the Centre for
Invasive Species Solutions



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We acknowledge all Aboriginal and Torres Strait Islander peoples and their continuing connection to country, culture and community.

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CITATION

This report should be cited as: Tarran M (2022). *National Registration with The APVMA of A Poison Feral Cat Bait Containing 1080 in the Liquid Form – Stage 1: Final Report for Project P01-T-004*. Report for the Centre for Invasive Species Solutions.

invasives.com.au

ISBN e-Book 978-1-922971-02-9

ISBN Print 978-1-922971-03-6

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ACKNOWLEDGEMENT OF PROJECT PARTNERS

The *National Registration with The APVMA of A Poison Feral Cat Bait Containing 1080 in the Liquid Form – Stage 1* project was led by Primary Industries and Regions South Australia in partnership South Australia Department for Environment and Water and Western Australia Department of Biodiversity, Conservation and Attractions.

The project was funded by the Australian Government Department of Agriculture, Fisheries and Forestry, Western Australian Department of Biodiversity, Conservation and Attractions with in-kind support from South Australian Department of Environment and Water, Department of Primary Industries and Regions South Australia, Western Australia Department of Biodiversity, Conservation and Attractions.

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NATIONAL REGISTRATION WITH THE APVMA OF A POISON FERAL CAT BAIT CONTAINING 1080 IN LIQUID FORM – STAGE 1

FINAL PROJECT REPORT FOR PO1-T-004

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INTRODUCTION

PREDATION BY FERAL CATS IN AUSTRALIA, AND CONTROL OPTIONS

Predation by feral cats is a 'Key Threatening Process' under the *Environment Protection and Biodiversity Conservation Act 1999*. Feral cats have been implicated in 27 of the 47 extinctions (57%) of Australian reptiles, birds and mammals since European colonisation, and up to two billion animals are killed every year by cats. The Australian Government's Threatened Species Action Plan 2022–2032 (formerly Threatened Species Strategy 2021–2031) identifies feral cats as the top priority for pest eradication and action. Feral cats are nationally 'declared pests' and recognised as an invasive species requiring control in all jurisdictions.

Feral cats are also hosts for several diseases and parasites. The economic impacts of these diseases in Australia are at least \$1.2 billion per year. Most disease impacts are a result of livestock abortions; stillbirths; and mortalities in sheep, cattle and goats because of *Toxoplasma gondii* – of which cats are the sole primary host. Another related parasite, *Sarcocystis* spp., is responsible for millions of dollars in impacts on the livestock sector – for example, due to sheep-meat carcass downgrades.

There are too few control tools for feral cats that are effective at a landscape scale. The main tools available for the control of feral cats fall into four categories: trapping, shooting, exclusion fencing and baiting. Trapping and shooting are time-consuming and costly, and are only appropriate at a small scale. Exclusion fencing is expensive and cost-prohibitive for most land managers. Baiting is considered to be the only effective broadscale tool for feral-cat management. The *Environment Protection and Biodiversity Conservation Amendment (Standing) Act 2015* threat abatement plan for predation by feral cats recommends that, for the effective control of feral cats, "broadscale toxic baits targeting feral cats are developed, registered and [made] available for use across all of Australia, including northern Australia".

The first feral-cat bait to be developed in Australia was Eradicat® (Patent No. 781829; APVMA No. 65272/50579), which was registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA) in 2015 for use in south-west Western Australia. The bait is not yet registered in any other state of Australia, but is used extensively under research and minor use APVMA permits in some states.

Two new baits have recently been developed using the same bait matrix to Eradicat®. The Curiosity® feral-cat bait uses the toxin para-amino propiophenone (PAPP), which is encapsulated in a hard-shell delivery vehicle (HSDV) similar to a pharmaceutical gel capsule. The Hisstory® bait also uses a hard-shell delivery vehicle, but instead of PAPP, 1080 is encapsulated. The purpose of the encapsulated toxins is to reduce non-target-animal risks in high-risk areas where there is a greater potential for native non-target animals to access the baits. However, the Hisstory® bait is still in testing, and the PAPP-based Curiosity® bait may not be appropriate in all situations – such when goannas (varanids) are active, because they have a very low tolerance to PAPP.

Although there are not enough landscape-scale, effective control tools for feral cats, a nationally registered Eradicat® bait would put another tried-and-tested tool in the toolbox for feral-cat management across Australia.

PROJECT AIM

We aimed to significantly progress the registration of the Eradicat® feral-cat bait, to pursue national registration of the product.

METHODS

A comprehensive review of efficacy and non-target data was compiled, as well as a national risk assessment for non-target species.

A draft of a bait label, directions for use and standard operating procedure were produced.

Data and project documents were assessed by a De Groot Technical Services contractor, and we were advised that we likely had enough efficacy and environmental data to pursue registration of the bait with the APVMA without requiring further field trials.

A technical assessment package containing all these documents was produced. The APVMA regularly uses these packages to assess the feasibility of national registration, and to identify how registrants could improve their registration package before submission.

ENGAGEMENT WITH MANAGERS, RESEARCHERS AND END USERS

In March 2020, a national workshop was held with feral-cat managers and researchers to assess the availability and suitability of current data on Eradicat® including data on national efficacy and non-target bait take.

These managers, researchers and end users have been engaged and updated regularly throughout the project via feedback to the steering committee and presentations at conference. Additionally, project updates were given to the national Feral Cat Taskforce meetings each year.

RESULTS

1. SUBMITTING A TECHNICAL ASSESSMENT PACKAGE TO THE REGULATORY BODY

In the first step towards assessing the viability of national registration, we submitted a technical assessment package to the APVMA.

This package included: (1) the bait label and directions for use, (2) a standard operating procedure, (3) a national risk assessment, (4) efficacy and environmental impact dossiers, and (5) a comprehensive review of national environmental impact and non-target data.

This package was assessed by the APVMA after an 18-month waiting period. Two reports were provided in response, including an environmental technical assessment, and efficacy and safety technical assessment.

The APVMA still has concerns about some classes of non-target taxa, possible secondary poisoning risks, and possible risks to some taxa at a population scale. We will address these concerns by modifying the risk-assessment framework to place greater emphasis on people identifying (and therefore reducing) the potential for non-target bait take and implementing strategies to minimise those identified risks. Additionally, the APVMA registration will be limited to states/territories where excellent data is already available about the risks.

2. PURSUING STAGE TWO REGISTRATION

The two-stage registration process is now being pursued, because the APVMA considers that there may be enough environmental data for registration of the bait in WA, SA, NT and Qld. They have asked for further data or argument to expand registration to the cool temperate regions of NSW, Vic and Tas. This will help to address concerns about the risk to a large suite of non-targets.

To support end users in creating their site-specific risk assessments, a draft national risk assessment (modelled closely on the risk assessment for Curiosity® produced by Buckmaster et al. 2014) will be hosted online on the WA Department of Biodiversity, Conservation and Attractions or APVMA websites. This risk assessment substitutes PAPP sensitivity data for 1080 data, and attempts to consider risk based on a bait with an injected toxin versus an encapsulated one. This national risk assessment is intended as a guide only.

Importantly, this risk assessment will need to be part of any application to bait with Eradicat®, not only with end users' state/territory authorities, who may not approve release of baits if risks to non-targets are unacceptably high.

3. SUBMITTING THE FINAL REGISTRATION PACKAGE

Once we have finished drafting a risk assessment framework, and have responded to all the APVMA's feedback, we aim to submit the final Stage 1 registration package. Optimistically, Eradicat® could be registered in the nominated states and territories in early 2023.

DISCUSSION

We are on the cusp of having another bait product registered for feral cats across much of mainland Australia.

This extension of the registration across SA, NT and Qld will make it easier for the next stage of registration of Eradicat® across NSW, Vic and Tas.

NSW Department of Primary Industries are planning extensive field trials of Eradicat® to determine the risk to threatened species. These data will eventually be used to inform the possibility of registration of Eradicat® in the remaining states with cool temperate ecosystems.

Costs for extension of the bait label to register the product in NSW, Vic or Tas will be negligible once more data becomes available (< \$5,000).

NEXT STEPS

WA Department of Biodiversity, Conservation and Attractions will continue to need some support for the final stages of preparing and submitting the Stage 1 registration package to the APVMA. There is still some feedback provided by the APVMA to take into consideration.

Once the product is registered in SA, Qld and NT, the next stage (Stage 2) will be to support field trials in NSW, Vic and Tas to assess the environmental safety of Eradicat® in these cool temperate parts of Australia, and then to pursue registration of Eradicat® in these states if the field trials indicate it is safe to do so.

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