

# HOW TO BAIT FERAL RABBITS USING PINDONE CARROTS

Pindone carrots are only available for sale to owners of properties greater than 1000m<sup>2</sup> within the Hills and Fleurieu Landscape Board

## Pindone

Pindone is an anticoagulant, similar in its mode of action to some rat and mice baits. For safety reasons, pindone carrots are NOT designed to work as a single dosage so multiple doses are required for it to provide effective rabbit control. Pindone prevents the uptake of vitamin K1. However the animal will have reserves of blood clotting agents and vitamin K1 stored in its body therefore repeated baitings are required (see Application technique).

## Pindone bait

Pindone is pre-mixed with diced carrots and green dye and supplied frozen in plastic bags. Upon receipt of carrots, wrap the bags in an additional waterproof bag and freeze until required.



## Safety

Do not store pindone carrots in your freezer if it can come into contact with food. Keep it separate where possible or place the labelled bag inside another waterproof plastic bag. Pindone is a poison but is safe provided all of the requirements on the label and directions are followed. Always wear the required protective equipment and wash hands and contaminated surfaces with soap and water after use. Please read the attached Material Safety Data Sheet.

## Baiting best done January to March

Pindone carrots work best when there is little alternative food source so it is recommended to be used from January to mid-March when ideally no green feed is available. Try to fence off areas like vegetable gardens to reduce access to alternative food sources.

## Neighbours

Try to encourage neighbours to also participate in a baiting program whenever possible. Larger baiting areas will reduce the number of recolonising rabbits.



## Free-feeding essential before baiting

Free-feeding with untreated carrots prior to the application of the pindone carrots improves the success of baiting. Correct free-feeding trains the rabbits to eat carrots and also provides the most accurate guide to the quantity of pindone carrots needed for the program.

### How to free-feed

It is recommended to do at least **three free-feeds with a 2-3 day interval** between each.

For each free-feed, in the early evening, with a hoe, make long trails, 1-2cm deep through the area where rabbits are seen feeding and socialising. Disturbing the soil attracts the rabbits. It is critical to ensure that trails are long enough to allow sub-dominant rabbits access to the trails. Dominant rabbits will guard and eat most of the carrots if placed in piles or along short trails. Apply untreated chopped/diced carrots along the trail at a spacing of 5-10cm.



For the second and subsequent free-feeds, adjust the position and length of the trails to the locations of greatest feeding activity. If the trails are long enough and in the locations of greatest feeding/social activity, you should have approximately 10% of the untreated carrots remaining in the morning after the final free-feed. This indicates that the maximum number of rabbits are eating a sufficient amount of bait.

Remove any carrots left in the morning after the final free-feed.

### Notification

**Landholders must display signs** specifying the target animal and date of pindone application immediately before pindone baiting starts. These notices must remain up for at least four weeks and are to be placed at:

- All entrances to the property
- All entrances to the actual poisoning site, and
- At the extremities of property boundaries fronting a public thoroughfare.

Notices are available from your Landscape Board upon request.

## Amount of pindone carrots required for the first (of 3) pindone feeds

Use the quantity of carrots consumed over-night at the final free-feed to indicate the quantity of pindone carrots needed for the first pindone feed. For example, if 5kg of untreated carrots were consumed overnight on the final free-feed (with 10% left over uneaten), 5kg of pindone carrots will be required for the first pindone feed.

The following table is an approximate guide to the amount of pindone carrots to purchase for the first pindone feed. However, for the best results, please use the above method to estimate the quantity needed as this is the most reliable way ensure sufficient bait is laid.

Number of rabbits	Suggested kg pindone carrots needed for the <b>first</b> (of three) pindone feeds
10	1.5
25	3
50	6
100	12



## Application technique for pindone feeds

1. Start the first pindone feed three days after the final free-feed.
2. Pindone carrots need to be distributed on **three occasions** at **3-5 day intervals**. Pindone washes off relatively easily so avoid wet weather, sprinklers etc.
3. In the morning of each pindone feed, allow the required number of bags of pindone carrots to defrost throughout the day.
4. In the early evening of that day, refresh the free-feeding trail with a hoe. Wearing waterproof gloves, open the pindone carrot bag(s) and place in a bucket. Apply the pindone carrots along the trail at a spacing of 5-10cm. **DO NOT** place the carrots in heaps or down the burrows.
5. In the early morning after each pindone feed, pick up any uneaten pindone carrots to avoid consumption by pets or wildlife. Bury any remaining carrots at least 30cm below the surface. **DO NOT** compost uneaten carrots or recycle plastic dispensing bag.
6. Aim to have no more than 10% of the pindone carrots uneaten in the morning after the feed. If significantly more is left uneaten, the trail location and length may need to be altered to where the feeding is the greatest. If after doing this a significant amount is still left over in the morning, reduce the amount of pindone carrots for the next feed so that only 10% or less remains in the morning.
7. Wash gloves and bucket with water after use, (pindone biodegrades in the soil) then wash hands thoroughly.
8. The rabbits should succumb to the treatment 12 to 14 days after the first pindone feed. Most rabbits will die in their burrows but if carcasses are found, dispose of them by deep burial.
9. If there are still rabbits remaining after this time, there may be new rabbits moving from neighbouring territory into your property. Alternatively, the trails were of insufficient length to allow sub-dominant rabbits to eat a lethal dose, or part of this procedure was not followed correctly. It is recommended to follow up with other control techniques (see below). If ripping and fumigation are not possible, repeat this procedure again.

## Safety to other animals

Whilst the risk of poisoning pets, livestock and wildlife is low, care should still be taken. Do NOT distribute bait material (both untreated and pindone carrots) in situations where pets, livestock or wildlife will have access. Move livestock from the area to be baited and keep pets inside or locked up on the nights of feeding. If you are concerned that wildlife will consume the bait, trial feed with untreated carrots at a time when you can observe the trail.

If you suspect your pet been poisoned, seek veterinary treatment. Vitamin K1 is an effective antidote.

## Follow up

Pindone baiting is a critical part of rabbit control. To achieve long term relief from rabbits, you will also need to follow up with other rabbit control techniques including - **harbour removal, warren destruction and fumigation.**

## Further assistance

Our Landscape Officers at Mt Barker (83917500) or Willunga (85503400) can advise you about pindone baiting. Please contact first before visiting an office to organise a suitable time for a Landscape Officer to assist you with advice or purchase of the bait. Alternatively contact us via email [hf.landscapeboard@sa.gov.au](mailto:hf.landscapeboard@sa.gov.au).