Starter's guide to

Predator control on lifestyle blocks

Introduced predators (rats, mice, possums, feral cats, hedgehogs, stoats, ferrets and weasels) create havoc on lifestyle blocks. They destroy fruit trees, spread diseases, damage equipment and harm native plants and wildlife. They also breed fast: one pregnant rat can result in 400 more rats in just six months.

The good news is that effective predator control is really achievable on smaller land holdings. Knowing how is the secret to success and keeping the costs down.

Know your target predators

Before embarking on any predator control, it's important to know which introduced predators you're dealing with and understand their behaviour and habits. Then, you can choose the most effective and cost-efficient control methods.

Remember, predators ignore boundaries — for every animal you catch, there will be more coming from neighbouring areas without predator control. Join up with your neighbours to make your efforts count.

Image: Ngā Manu

Rodents
(Norway rats, ship rats & mice)

- Breed fast producing large numbers of offspring, prey on a wide range of seed, fruit, insects, lizards and birds.
- Spread diseases like leptospirosis.
- Damage or spoil valuable feed supplements.
- Interfere with wiring in houses, buildings, pump-sheds, etc.


Image: Ngā Manu

Possums

- Eat anything (pasture, native trees, fruit trees, crops, insects, eggs, nestlings).
- Compete with native wildlife for food.
- Spread diseases like bovine tuberculosis (TB).


Image: Ngā Manu

Mustelids

(Stoats, ferrets and weasels)

- Produce large numbers of offspring each spring, especially when rodent or rabbit numbers are high (1 pregnant female can produce more than 14 new stoats each spring).
- Young female stoats are already pregnant when they leave their den.
- Devastate ground nesting birds and waterfowl population.
- Kill a wide range of other native birds, lizards and insects.
- Spread diseases like bovine tuberculosis (TB).


Image: DOC

Feral cats

- Devastate ground nesting birds and waterfowl.
- Kill a wide range of native birds, lizards and insects.
- Spread diseases like toxoplasmosis (which is harmful to humans and livestock).


Image: Ngā Manu

Hedgehogs

- Devastate ground nesting birds.
- Eat a wide range of native insects (wētā, native snails).
- Spread diseases like salmonella

Your predator control toolbox

There's no magic bullet; all tools have their advantages, limitations and consequences. Overuse of the same tool will also reduce effectiveness. Tool selection depends on each situation: habitat, which introduced predators are present, other animals present (non-targets) and how much time and money you put into it.

For the best chance of success, you should consider teaming up with your neighbours. When it comes to predator control — ***bigger is better***. Being able to check your devices regularly on a smaller land holding makes for even better results.

Monitoring

A good first step is to do some monitoring to tell you what predators are around. Use corflute 'chew cards' to help you, they are cheap and easy to use, you can buy them or make your own. Peanut butter impregnated into the corflute will encourage 'biting' from rodents and possums; use rabbit paste or mutton fat for mustelids, cats, hedgehogs use.

Each predator has a distinctive tooth pattern to identify what has been biting. Place about 5 cards per acre at approximately 50m spacings on bush and stream edges, in orchards or around buildings. Leave out for three fine nights — dark moon phases are best to maximise predator activity.

Corflute 'chew card' impregnated with peanut butter

But beware if you have lots of rodents — cards will get shredded, reducing the information you get from them. Leave out for a shorter period if predator numbers are high or consider using inked footprint tracking tunnels. Ensure stock **DO NOT** have access to cards.

Toxins

Pros

- Effective over large areas with dense predator populations.
- Can save time, money and resources.

Cons

- Personal risk of handling toxins.
- Risks to other animals ("non-target" species) and to the wider environment.

Ditrac bait blocks

Tips for best use

- Contain toxins in weather resistant bait stations e.g. Philproof Tamperproof Rodent; Tomcat rodent bait station.
- Secure bait blocks on pins in tamper-proof rodent stations so rats can't carry it off and store the bait.
- Use bait from late winter through to early spring when predators are hungry, increasing and threaten nesting birds.
- Instead of baiting year-round, 'pulse' your bait at key times to save money and avoid bait shyness. Effective pulsing times are usually four times a year in August, November, January and April.
- Remove bait after 2 weeks to avoid predators encountering rotten or mouldy bait which adds to bait shyness. For best practice when disposing of bait, check the product label.
- Bait station spacing will depend on your target animal, toxins used and habitat. Adequate coverage is important.

Contrac bait blocks in a Tomcat rodent bait station

Risks

- Carefully consider any potential effects of toxins on your lifestyle block.
- Desirable wildlife and livestock must not have access to baits. Some toxins may build up in the environment and may kill or harm other animals or wildlife through eating baits (primary poisoning) or by consuming poisoned animals (secondary poisoning).
- Follow label instructions, use Personal Protective Equipment, post appropriate warning signs, contain toxins in bait stations and keep bait stations away from stock and pets.
- If you suspect poisoning, call the National Poisons Centre on 0800 POISON.

Options

Acute toxins (fast acting: e.g. 1080, cyanide)

- Controlled Substance Licence (CSL) required.
- Animal feels effect within minutes.
- Requires pre-feeding to get good results.
- Risk of bait shyness — bait shy predators are hard to catch and so are their offspring!
- No antidotes.
- Secondary poisoning risk for some acute toxins (1080).

Chronic toxins (slow acting: e.g. anticoagulants)

- No CSL required.
- Animal doesn't feel effect for days so does not associate feeling 'unwell' with eating bait.
- Weaker first generation anticoagulants (Pindone, Ditrac, Contrac) require multiple feeds over several days.
- More powerful 2nd generation anticoagulants (Pestoff Brodifacoum) need just one feed.
- Antidote available (Vitamin K).
- Second generation anticoagulants can be persistent in the food chain, so be careful if wild or domestic pigs are present.

Cholecalciferol (Vitamin D3) (Feracol and DECAL)

- No CSL required.
- Fits in between acute and chronic.
- Predators lose appetite after 20–30 mins.
- Pre-feeding required to avoid bait shyness.
- No secondary poison effects.

Shooting

Pros

- Useful for possums (other predators can also be targeted, e.g. feral cats).
- Night-shooting possums in spring is effective when favoured food such as willow or larch buds are just starting.
- Possums are easily detected in 'naked' trees.
- Large areas can be covered quickly.

Cons

- Shooting is ineffective for rodents and mustelids.
- Limited application in bush country.

Possum shooting. Video still: Seven Sharp

Goodnature A24 trap

Trapping

Pros

- Useful for ongoing control once predator numbers are knocked down by toxins and/or night shooting.
- Less hazardous than toxins.
- Also useful for assessing predator presence/abundance (monitoring).

Cons

- Most kill traps only kill one predator at a time.
- If predator numbers are high, trapping can be time consuming and less effective than toxins.
- A trap 'scare' (from an incorrectly set trap) can make predators trap shy.
- Traps can be dangerous to non target species such as kiwi and weka.

Small ferret caught in a DOC 200 wooden box trap

Tips for best use

- Kill traps (e.g. DOC 200 box traps, Flipping Timmy, Sentinel, Warrior) can be set and left for a period of days or weeks between checks. Check frequently — at least every 2 weeks if possible, but more in spring and summer when predators are more mobile.
- Automatic resetting traps such as the NZ Autotraps AT220 or Goodnature A24 can catch multiple predators so need less frequent checks.
- Leg-hold or live cage traps must legally be checked every day.
- Traps must use attractive lures/baits to encourage predators in. A combination of visual and odour attractants work best. Food rewards in and outside traps increase attractiveness.
- Trap spacing depends on your target animal and habitat situation.
- Target obvious animal runs (tracks) along and under fence lines, bush edges, the side of buildings, along road or track edges, around culverts, bedside streams or log crossings.
- Attention to detail is important. Set every trap like your life depends on it — every time! A trap-shy predator will be hard to catch and so will their offspring.
- Keep traps clean and well maintained.
- Putting traps in place one month or so prior to the trapping operation will reduce the natural caution that predators show towards new objects in their habitat.
- If a trap consistently fails to register a catch, moving it a few metres can make a big difference.
- Take care to ensure that wildlife and livestock cannot be trapped. Where necessary, use trap covers or raised sets to reduce the risk to non target species.

Predator control best practices

For all traps and bait stations

- Use a minimum of 2 devices (traps and/or bait stations) per acre or 5 per hectare, i.e. on a 10 acre block you will need at least 20 devices. In buildings or sheds, use one device per 20m^2.
- Make sure grass is controlled at trap or bait station entrances, at least one metre from the entrances. This reduces moisture which causes the bait to go mouldy and makes access easier for predators. Use glyphosate at the start of each season to save time.
- Scuff the ground around traps during each check to create 'interest' for predators.
- Lure the area around each trap or bait station site with scented (peach, vanilla, cinnamon) flour laced with icing sugar, again to increase interest.
  DO NOT put flour on your devices!
- Pre-feeding at and around trap sites will improve catch rates. Put small bits of tasty lure near your trap to entice the animals.
- A combination of bait types and trapping over time is best practice to avoid predators adapting to your control methods. Traps that predators can see right through increase the catch rate.
- Don't expect new traps, trap boxes or bait stations to catch immediately after placement. Predators have a natural suspicion towards unfamiliar objects and may take a few days to venture near them.

Possum control

Option 1

- Seasonally night-shoot bush-pasture margins and trees favoured by possums as flowers, buds or fruit come on e.g. pine, willow, larch, and natives (mahoe, cabbage trees, kōwhai).
- Warm nights are best, especially after rain.
- Follow up with kill traps (Flipping Timmy, Sentinel, or AT220) on a 100–150m grid to get uniform coverage of 1 trap/ha.
- Service and re-bait about every 2–4 weeks, depending on the population.

Option 2

- If pigs are not present, and there is no stock access, use bait stations 30cm off the ground on a similar 100–150m grid.
- Use Pestoff Brodifacoum possum baits in Philproof 'mini' bait stations.
- Pulse 700g of bait initially and then 300g of bait per station every 4 weeks from late winter (August) to early spring (until late October).
- Where there are 'non target' species at risk, use 2–3 applications of Feracol or DECAL over the same period, pre-feed with the equivalent non-toxic product for one week before each toxin application. Both of these products will also control rats.
- 'Double Tap' pellets are a combination of Cholecalciferol and Diphacinone that can also control rats and possums with reduced non target risks.
- Ensure dogs and livestock **CAN NOT** access any bait.

Flipping Timmy possum trap

Rodent control

Traps

- Rodent snap traps in wooden tunnels work well for rodents.
- Locate traps on a 75–100m grid. Set about 100–200mm off the ground on trees in similar grid to snap trap network.
- Lure with peanut butter.
- Check regularly — every 2–4 weeks.
- Goodnature A24 automatic resetting traps are ideal for rodents. Set about 100–200mm off the ground on trees in similar grid to snap trap network.
- Replace CO_2 gas canisters and lure pumps about every 3–4 months.

Bait stations

- During certain times (e.g. mast years) or in places where there are high rodent populations, bait stations may be more effective than traps.
- The same network of bait stations as for possums can be used, but extra stations (or traps) may be required to reduce device spacing to 50–75m.
- Pulse with Pindone pellets, Ditrac, Contrac or Pestoff (blocks or pellets) monthly, from August to November.
- 'Double Tap' pellets are a combination of Cholecalciferol and Diphacinone that can also control rats and possums with reduced non target risks
- Ensure dogs and livestock **CAN NOT** access bait.

T-Rex rat trap in tunnel

Note: Possums can eat large amounts of Pindone pellets. If you have a CSL (Controlled Substance Licence), then Feratox (encapsulated cyanide) is a good product to reduce this, or place possum traps at bait station sites.

Mustelid control

- Use DOC 200 wooden box traps with enlarged openings (4×4 mesh squares) to target weasels, stoats and ferrets. Larger entrances will catch more pests, so consider non-targets in your local environment.
- Place away from stock access at 100–150m intervals along the inside of bush block fences, on game trails, and along stream edges within bush areas.
- For bush areas <10ha no internal traps will be required as stoats will be within 200m of a trap.
- Rebait about every 2 weeks with eggs (in spring), fresh rabbit (in winter), or Erayz rabbit blocks/paste (a long-life product) in warmer climates. Rebait less in winter and more in spring/summer.
- DOC 200 traps also catch rats and hedgehogs.
- Modifications might be required if kiwi, weka or other non target species are present.
- Ensure DOC 200 entrance holes have no rough 'sprags'. File until smooth or fold mesh rather than cutting.

DOC 200 wooden box trap

Cost

Cost can vary from place to place depending on scale, terrain, habitat, pest species and whether labour is voluntary or not.

As a rule of thumb, a least two devices per ha will be required for combined rat, possum and stoat suppression. Preferably these should include a mix of different trap types with some periodic use of bait stations. Because the scale of lifestyle blocks is often smaller (2–10ha), the risk of reinvasion from untreated adjoining lands is so much higher. The counter to this that it is possible to install more devices and to check them more regularly, increasing their effectiveness. By doing the work themselves, interested landowners can save on labour costs.

Rodent control in sheds and buildings is more device-intense and should be considered differently to wider landscape pest control. Devices should be installed at a rate of at least two per shed or one per 20m^2, again consider using a mix of different traps and bait stations. The April to September period is the most important for rodent control in sheds and buildings, as the colder weather drives them to seek shelter.

In terms of labour, a landowner on a typical 4ha block with 15–20 devices across the landscape and in sheds, could check these in under an hour. That would allow significant pest suppression for an input of just 2 or 3 hours (2 or 3 checks) per week.

For more information on predator control specific to your area, we recommend that you contact a pest control professional, your regional council or local DOC office.

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