

# Chew Cards for Landcare Groups – Draft Guidelines

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(Based on Chew Card Protocol developed by AHB (Animal Health Board). Also information and comment supplied by Peter Sweetapple, Landcare Research). Includes this excellent link for bite mark identification: <http://www.landcareresearch.co.nz/publications/researchpubs/chew-card-a-guide-to-the-interpretation-of-animal-tooth-impressions.pdf>  
Also view [www.patumahoe.org.nz](http://www.patumahoe.org.nz). Whakaupoko Landcare section for a copy of this and more

Chew Cards are a simple tool allowing a range of pest species bite marks to be recorded including possums and rats. This is by placing a bait including peanut butter inside corflute grooves, (material used in real estate signs). The addition of ink along the edges allows them to also be used as Tracking Cards and as a result be termed Chew Track Cards or CTC's, (especially useful for monitoring mice).

Chew Cards are an excellent new simple and effective tool. They are very sensitive to the presence of pests. They have application in many situations, (including lower pest densities), where they can provide similar information as a combination of Tracking Tunnels for rats etc and RTC legholders for possums – all at a much lower cost. The AHB now use Chew Cards extensively to identify the presence of target pests and also are finding they are effective as an alternative to prefeeding. Both these applications are all helping to make their budget stretch further.

Many Landcare Groups spend a considerable amount of time and resources controlling possums and rats. Chew Cards have excellent application to:

- a Identify areas of pest presence to target for control and**
- b Monitoring** – eg as a year by year indicator of the level of pest control being achieved. This provides excellent feedback to both the community and funding agencies.

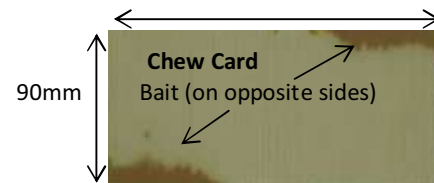
There are a number of sources for Chew Cards

- Contact local real estate companies for old signs and make your own. **However they must be cut accurately** or contact eg
- Connovation or PSP, Hamilton or Mulford Plastics 180mm

## 1 Materials & Baiting

Chew Cards are made from 3mm thick corflute with the flutes parallel with the 90mm edges.

**NB:** Cut the chew cards accurately with straight edges so that the amount of bait in each card is uniform.



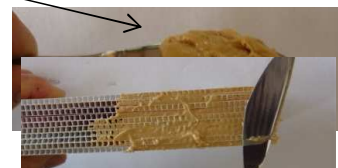
**Bait** Using smooth peanut butter is the most simple. For an even more attractive bait you can add 20% icing sugar and / or 10% dark honey.

Whatever options you choose stay consistent.

One full knife scoop = approx 15 – 20 gms

**Use** 15 – 20 gms / 10 cards / side  
= 2gms / side and 4gms / card

Apply to only half of each side (so air not trapped).



## Spreading Bait

Hold cards together and spread bait until all ends up inside corflute holes. Wipe excess onto edge cards as they often end up with less. (Note holes of corflute are always on long side).

Use a broad knife or even better a paint scraper

The penetration of the bait should be 12 – 20mm and this can be checked by simply holding up the card in good light and viewing. The spread of bait should be at least 50mm wide.



## 2 Labelling & Location

Label Chew Cards with eg **your name and individual card number**. Attach to trees / fences etc, approx 30cm above ground level using a 50 – 75mm flat head nail.

Fold in half and leave the top flap at approx. 45°  
(NB: Avoid locating on fence lines with electric wires as some pests avoid electric fences).

3 **Spacing and places to locate Chew Cards.** This depends on the area of control and the number of people / resources available.

**For total coverage (As with current AHB practise for presence / absence)**

- Locate Chew Cards at 50m spacings and consider less if rats are the main target. Locate where pests are most likely to be. For blocks of bush more than 200m wide more than 1 transects is required no further than 150m from another.
- Along shelter lines use a spacing of 100m
- In scattered bush ensure no bush is more than 100m away from a Chew Card  
Also we recommend
- Locate Chew Cards close to rural houses and other rural buildings

**For sampling large areas of bush with limited resources use the Chew Cards as random transect sample lines. (In much the same way as trend monitoring with legholders with assessing possum RTC's).**

- In bush use 1 card every 20 - 50m. Set as a straight line (eg 10 – 20 cards on a transect line). Chew Cards should be attached to the nearest available site at the pre-determined spacing. Additional lines should be no closer than 200m distant from the first.

There may be variations of these 2 options that are adapted to your specific needs. The key is that if the Chew Cards are intended to be used for pest population trend monitoring then be consistent with your practises.

#### 4 **Timing**

Leave Chew Cards in place for 7 days (1 week).

If the CTC's are being used to monitor pest presence on an ongoing basis and comparisons made for instance year to year, then it is important to choose a time of the year when food supply is reasonably consistent. For instance late winter would be good in most situations as there will generally be very little difference from year to year and food supplies will be relatively low. Late summer in many areas would not be as good as there can be an extreme food shortage in a drought for instance or an abundance of seed, vegetation and berries in a summer with good rainfall.

If the CTC's are primarily being used to monitor rats then at least in the short term Groups may consider monitoring more than once per year given the rats breeding capabilities etc.

#### 5 **Interpreting, confirming and recording results**

It is not easy to be confident with assessing chew cards with limited or no experience. However Peter Sweetapple and Graeme Nugent from Landcare Research are making available increasingly more detailed images and explanation that is making it a whole lot easier.

- Refer Chew Card bite mark interpretation via internet
- Seek clarification with others
- Write your pest identification on the card with a permanent marker pen
- Record location on Google Maps and record results for monitoring trends over time (The key is that the survey can be repeated with similar Chew Card placement at future dates).

**Livestock** Ideally do not allow livestock access to Chew Cards over the 7 days. Where Livestock interference is likely, CTC's should be placed above reach (eg. 2m above ground level).

**Recording** The person recovering the CTC in the field should make a permanent note on the CTC of the result grouping as per the table below. However where unsure follow up with someone else who can assist with accurate identification. Results should be transferred onto a standard computer record. Eg record via Google Maps.

R=	Rat	P =	Possum
N =	None	F =	Ferret
H =	Hedgehog	S =	Stoat
C =	Cat	W =	Weasel
I =	Interference	U =	Unidentified
B =	Both (Possum & Rat)	L =	Lost