Cattle tick – collection and storage of suspect cattle ticks found on livestock

July 2017, Primefact 1555, first edition
Animal Biosecurity and Welfare, NSW DPI

Notification to owner or agent
Cattle tick are notifiable under the NSW Biosecurity Regulation 2017 and must be eradicated so if suspect cattle ticks are found on stock by an Local Land Services (LLS) or NSW Department of Primary Industries ( DPI) authorised officer.

When an authorised officer finds ticks at a saleyards or abattoir or during a herd inspection they will let the stockowner or their agent or representative see the ticks in situ before removing them. If a camera is available the authorised officer may take a photo of the suspect ticks as well.

Because cattle tick needs to be distinguished from other ticks found on animals like paralysis ticks and bush tick it is best to collect a number of the suspect ticks of different size in good condition for examination under magnification. Primefact 1544 Identifying life cycle stages of cattle tick and Primefact 84 Three ticks of concerns to NSW stockowners which are both located on the NSW DPI website at http://www.dpi.nsw.gov.au/content/agriculture/livestock/health/images/information-by-species/cattle/ticks are useful resources to consult regarding tick identification.

Cattle tick tend to have preferred sites on cattle so if suspect ticks are found at these sites they are more likely to be cattle tick. See Primefact 1545 Cattle tick - manual inspection of cattle tick carriers for details on preferred sites for cattle tick like the tail butt or escutcheon.

Storing and transporting live ticks
If the tick is alive, place a small piece of slightly dampened tissue covered with a piece of paper at the bottom of a screw topped jar. Place the live ticks on top of this and replace the lid after putting a number of small holes in it to provide fresh air for the ticks but prevent their escape.

Do not overcrowd the ticks.

Care should be taken to see that the bottles are not exposed to heat (e.g. left in the sunlight, a hot car boot or glove box, etc.) as this may kill the ticks. Likewise, too much moisture in the bottle could also kill the ticks. Ticks are very susceptible to pour-on chemicals so the containers used to hold live ticks should not be exposed to even vapours from these chemicals.

Supplies of bottles to use for storing ticks can be obtained from a NSW DPI or LLS office.

The suspect ticks can be taken to a NSW DPI or LLS office where they can be examined under magnification if required to confirm the identification. They may also be sent for resistance testing if there is concern that they may be resistant.

Storing and transporting live ticks
If ticks are already dead, or it is not practical to forward live ticks, they should be preserved in a solution of three parts methylated spirit and one part water. Live adult ticks are preferred as this permits resistance testing to be carried out.
Labelling of tick containers
To avoid mixups and disputes tick containers must be have identification details recorded on the label. The following details should be recorded:

- the name and address of owner (if known)
- the Property Identification Code (PIC)
- the number of ticks in the jar
- date
- the name of the person who collected them.

Resistance testing
To undertake resistance testing healthy female cattle ticks have to lay eggs and those eggs then hatch allowing the tick larvae to be tested against various strengths and types of chemicals. Ticks that may have been exposed to pour on chemicals often lay abnormal eggs with poor hatching rates so it is important to get the healthy looking adult female ticks and store them properly.

Resistant testing normally takes 6-8 weeks.