

Cattle Tick (*Boophilus Microplus*) Control Using

# Wintix®

&

# Genesis™ Pour-On



  
**Ancare**

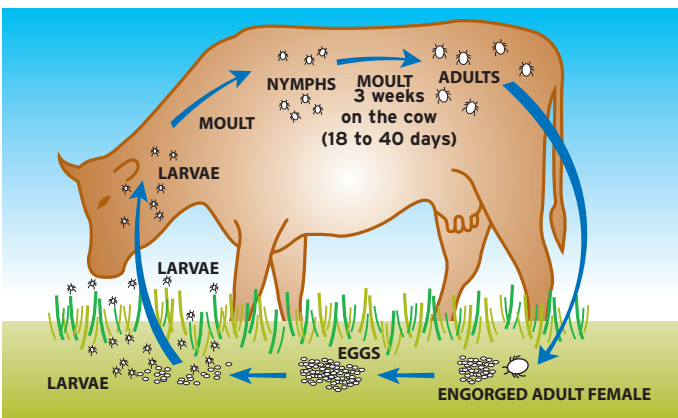


## WHAT YOU NEED TO KNOW ABOUT CATTLE TICKS

The cattle tick (*Boophilus microplus*) is a single-host tick, which means the three stages of development (larva, nymph and adult) occur on the one animal. It takes 18 to 40 days for an attaching larva to become a fully engorged female ready to drop off the animal and lay eggs. Larvae and nymphs need to feed on cattle blood to be able to moult into the following developmental stage. Adults need a blood meal to reproduce and lay eggs. An adult female consumes about 0.3mL of blood.

The use of both GENESIS™ POUR-ON and WINTIX® POUR-ON takes advantage of the blood-feeding habits of the cattle tick: the active ingredients, ivermectin (GENESIS™) and fluzuron (WINTIX®) are present in the blood of the treated cattle and the ticks are poisoned when they feed.

Neither GENESIS™ POUR-ON nor WINTIX®, POUR-ON act upon contact with ticks.



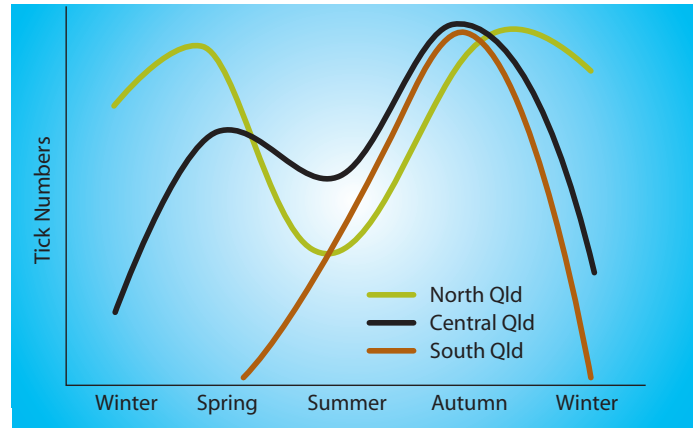
The cattle tick life cycle.<sup>1</sup>

The basis of successful control is the prevention of female ticks from laying eggs to break the tick life cycle and limit contamination of the environment.

Cattle ticks thrive in warm, humid conditions, so tick activity varies on a seasonal basis. In southern Queensland and northern New South Wales, the peak of tick activity occurs in Autumn. In central Queensland, there are peaks in Spring and Autumn. In northern Queensland, ticks are active all year round, though some reduction in numbers occurs in Summer and, to a lesser extent, Winter.

Spelling of paddocks can be used to aid in the control of cattle ticks. The length of time required to significantly reduce tick numbers varies according to environmental conditions. To eradicate ticks from paddocks or properties, they must remain entirely free of stock for at least the following spelling periods.

- North and North-West 12 to 24 weeks
- Central 24 weeks
- South-East 9 months (over the October-June tick season)



Tick activity throughout Queensland<sup>2</sup>

## WHAT YOU NEED TO KNOW ABOUT WINTIX® POUR-ON

Fluzuron, the active ingredient found in WINTIX® POUR-ON, is an Insect Growth Regulator (IGR). It is also referred to as a tick development inhibitor. It interrupts the tick life cycle at different points by interfering with cuticle (chitin) formation. This results in the death of larvae and nymphs because they cannot moult to the following stage of development and prevents adult females from producing viable eggs.

WINTIX® POUR-ON, unlike most tickicides does not poison ticks on contact and it should therefore not be used as a 'knock-down' or detaching agent. WINTIX® POUR-ON is absorbed through the skin of the cattle and accumulates in the fat and blood. It is ingested by the tick as it takes a blood meal.<sup>3</sup>

It can take two to three weeks for cattle to be visibly free of ticks but no additional treatment is necessary during that time, even on heavily infested animals. The effect of WINTIX® POUR-ON commences within three days of treatment. Control may be achieved for up to 12 weeks but can vary under field conditions (eight weeks protection is usually achieved).<sup>4</sup>

Note that calves suckling WINTIX®-treated cows do not need to be treated as they receive sufficient chemical through their dam's milk. This does, however, lead to a reduced length of protection for the cow and the calf attracts a four month withholding period.

For residue considerations, WINTIX® POUR-ON can only be applied for a maximum of three treatments per season and at no less than 42 days between treatments.

Field studies have shown that, unlike sprays and dips that have strong insecticidal activity (e.g. chlorfenvinphos, cypermethrin, deltamethrin), fluzuron has no adverse impacts on dung beetle communities.<sup>5</sup>

# Wintix® & Genesis™ Pour-On



Engorged female cattle tick<sup>6</sup>



Female cattle ticks with eggs<sup>7</sup>

## WHAT YOU NEED TO KNOW ABOUT GENESIS™ POUR-ON

Ivermectin, the active ingredient found in GENESIS™ POUR-ON, is a broad spectrum endectocide that controls gastro-intestinal roundworms, lungworm, biting and sucking lice, mange mites and buffalo fly as well as killing cattle tick.

When using GENESIS™ POUR-ON, maximum tick efficacy is achieved four-five days after treatment. Engorged female ticks that drop from cattle in the initial days after treatment may lay some viable eggs. This should be taken into account when planning a strategic tick control program.

When using the "treat and move" technique to control cattle tick, treat with GENESIS™ POUR-ON then wait for at least three (preferably four to five) days before moving the animals to a clean paddock.

Do not repeat treatment with GENESIS™ POUR-ON within the meat withholding period of 21 days.

Ivermectin is not likely to have a long term adverse effect on dung beetle populations. Like other macrocyclic lactones (e.g. moxidectin, doramectin, abamectin), some mortality or impaired development of larvae or reduced fecundity of adults may be expected, but for a limited time after treatment. The use of sprays and dips containing synthetic pyrethroids (e.g. cypermethrin) and other insecticidal actives has a far higher impact on dung beetle communities.

There is no clear evidence to indicate that any of the macrocyclic lactones have a long term detrimental effect on dung disappearance rates in the field in Australian conditions.<sup>9</sup>

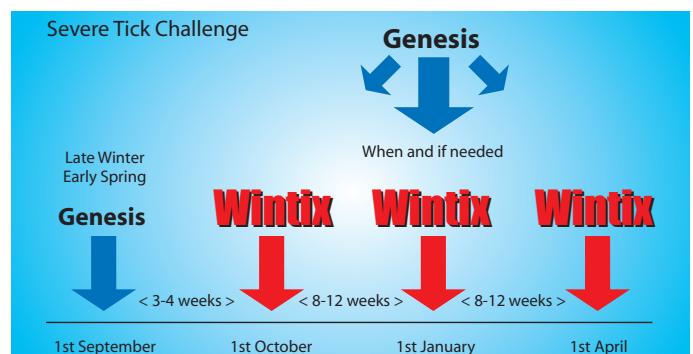
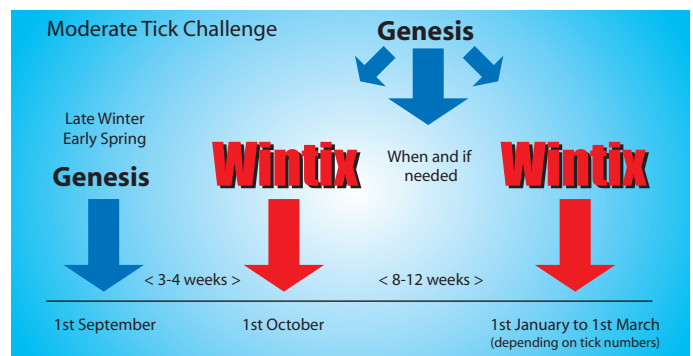
## STRATEGIC USE OF GENESIS™ POUR-ON AND WINTIX® POUR-ON TO CONTROL CATTLE TICKS

A practical approach to cattle tick control, as recommended by ANCARE, could include:

- 1st treatment early Spring with GENESIS™ POUR-ON, because this is a good time to treat cattle for worms, to control any lice left over from Winter and to suppress any early populations of buffalo fly
- 2nd treatment using WINTIX® POUR-ON, which targets cattle ticks and provides persistent control of up to 12 weeks
- 3rd treatment using WINTIX® POUR-ON

If the animals need extra worming or short-term buffalo fly control during the season, GENESIS™ POUR-ON can be used at any time, as long as it is at least 21 days after the previous application of GENESIS™ POUR-ON. Additional worming is most likely to be required in late spring - early summer, particularly if the season is wet or the initial worm treatment occurred more than a few weeks after the Spring break. A second application of GENESIS™ POUR-ON, with its tick activity, may allow producers to delay the second application of WINTIX® by two to three weeks.

Monitoring tick numbers on the animals is the best way to decide if and when a second WINTIX® treatment should occur.



The suppression of tick numbers can expose cattle to outbreaks of tick fever because natural infection with the tick fever organisms becomes sporadic. It is good practice to include vaccination for tick fever in all strategic parasite control programmes where cattle may come into contact with cattle ticks.

# Wintix® & Genesis™ Pour-On

Because GENESIS™ POUR-ON contains a different chemical to WINTIX® POUR-ON, there is no minimum time interval between application of WINTIX® POUR-ON and GENESIS™ POUR-ON. In fact, the two products could be used at the same time as long as they are not mixed together and are not applied on the same skin area. This is easily achieved, as both products are quite concentrated and do not need to be applied over the entire back area.

The approach presented above is a simple guideline and should only be used as a rule of thumb. Actual treatments in the field should take into account many factors such as:

- Type of cattle: the more *Bos indicus* (zebu) blood, the more natural resistance to ticks and the less treatments necessary.
- Season: adjust treatment times according to environmental conditions so that treatment starts before the annual peak of tick activity is expected.
- Geographic area: depending on the location, the peak of tick activity occurs at different times of the year.
- Spelling paddocks: by moving treated cattle to tick-free paddocks, the number of treatments needed may be reduced. Make sure the fencing is adequate to prevent the entry of tick-infested stock.
- Level of control required: better control is required when crossing the tick line, for example (see below).
- Influence of drought: tick numbers are much lower during droughts and fewer treatments are necessary.

*Neither GENESIS™ POUR-ON nor WINTIX® POUR-ON are to be used for the control of the Scrub or Paralysis Tick (Ixodes holocyclus) and the New Zealand or Bush Tick (Haemaphysalis longicornis)*

## LEGAL REQUIREMENTS TO PASS THE TICK LINE

Since 1st April 2002, it is possible to use GENESIS™ POUR-ON as the final preliminary treatment before presentation at a clearing station on the tick line. The most important thing to remember is to treat a minimum of six days and a maximum of nine days before presentation because ivermectin takes four to five days to reach maximum efficacy.

When multiple preliminary treatments with GENESIS™ POUR-ON are required (e.g. when dealing with a heavy tick infestation), the first treatment should be a minimum of 28 days before the date of presentation (i.e. 21 days before the second treatment).

WINTIX® POUR-ON is not recommended for use as the final preliminary treatment, just prior to presentation at the tick line. It would be acceptable as a first preliminary treatment, but not as the final preliminary treatment.

WINTIX® POUR-ON and GENESIS™ POUR-ON can be used in combination for clearing cattle. Treat cattle with WINTIX® POUR-ON a minimum of 28 days prior to presentation and then use GENESIS™ POUR-ON six to nine days prior to presentation.

It is recommended to combine this approach with the use of holding areas that are free of cattle ticks, and inspecting the animals thoroughly before sending them to clearance centres.



## REFERENCES

- 1, 2. After Department of Primary Industries and Fisheries, Qld: <http://www.dpi.qld.gov.au/health/3605.html>
3. After Department of Primary Industries and Fisheries, Qld: <http://www.dpi.qld.gov.au/health/3604.html>
4. BULL M.S. et al. (1996)- Suppression of Boophilus microplus populations with fluazuron - an acarine growth regulator - Australian Veterinary Journal, 74, 468-470
5. KRYGER U. & SCHOLTZ C.H. (2004) Dung beetle compatibility of selected anti-parasitic drugs - Proceedings of the 46th Annual Scientific Meeting of the Australian Society for Parasitology
- 6, 7. Courtesy of Department of Primary Industries and Fisheries, Qld
8. STEEL J.W. & WARDHAUGH K.G. (2002) Ecological impacts of macrocyclic lactones on dung fauna - In: Macrocyclic lactones in antiparasitic therapy (Vercruyse & Rew, Eds)
9. NRA Special Review of Macrocyclic Lactones, NRA Special Review Series 98.3, Chemical Review Section, National Registration Authority, Australia (1998)



  
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