REFERENCES:
Maintaining parasite protection can seem complex

Currently owners use a number of strategies to protect their dogs against the 4 key parasitic threats of fleas, ticks, heartworm and intestinal worms:

- **TOPICAL** (Sprays and spot-ons)
- **ORAL** (tablets and chews)
- **COLLAR**
- **INJECTION**

Protection methods present various challenges, e.g. some sprays, spot-on formulations and collars are affected by bathing, swimming or shampooing.

Different products, different timings and different methods of administration can be confusing for pet owners, leading to poor compliance and Pet Owner reluctance in choosing parasite protection products.

Perceived expense and complexity can lead to suboptimal protection and leave dogs exposed to risk of parasitic infection.

So easy for you!
The MOST complete protection against fleas, ticks, heartworm and intestinal worms, in one tasty chew

Afoxolaner and milbemycin oxime combination protects against:

- **FLEAS**
  - Rapidly kills fleas, before they can lay eggs
  - Controls Flea Allergy Dermatitis

- **TICKS**
  - Controls pre-existing paralysis tick infestations within 24 hours

- **HEARTWORM**
  - Prevents heartworm disease (*D. immitis*)

- **INTESTINAL WORMS**
  - Treats and controls hookworm (*A. caninum*), roundworm (*T. canis, T. leonina*) and whipworm (*T. vulpis*)

*See product label for full details.*
Prevention that is easy to give and easy to remember is recognised as a major factor in improving adherence to treatment programs.¹

- NEXGARD SPECTRA is a soft beef-flavoured chew that dogs readily accept²

100% OF OWNERS reported that NEXGARD SPECTRA was well-received by their dog*

*Australian field study, at the end of a three-month treatment period.²

Many pet owners prefer a monthly treatment over a less frequent one

Incorporating our pet’s monthly treatment regimen into our own monthly routine helps ensure they are always protected
ONE CHEW
WITH TWO POWERFUL ACTIVES

AFOXOLANER

- A member of the isoxazoline class of drugs
- Kills fleas and ticks by selectively blocking GABA-gated and glutamate-gated chloride channels in insect and acarine nerve cell membranes

MILBEMYCIN OXIME

- A member of the macrocyclic lactone drug class
- Kills heartworm and intestinal worms through the activation of GABA and glutamate-gated chloride channels on nematode neurons and pharyngeal muscle cells

Pharmacokinetics

<table>
<thead>
<tr>
<th></th>
<th>AFOXOLANER</th>
<th>MILBEMYCIN OXIME*</th>
</tr>
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<tbody>
<tr>
<td>Can be given with or without food</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Fast absorption</td>
<td>2–4 hours $T_{\text{max}}$</td>
<td>1–2 hours $T_{\text{max}}$</td>
</tr>
<tr>
<td>Mean half-life</td>
<td>14 days</td>
<td>1.6–3.3 days</td>
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*Milbemycin oxime is composed of a mixture of two homologues – approximately 80% A4 form and 20% A3 form. The data above reflects both forms.

Studies have been conducted to evaluate the pharmacokinetics of afoxolaner and milbemycin oxime when used as a combination chewable parasiticide for dogs. These studies support:

- Rapid onset and sustained efficacy for afoxolaner against ectoparasites
- Known endoparasitic activity of milbemycin oxime
- Similar absorption, distribution, metabolism and excretion behaviour to that seen when the actives are used alone
Afoxolaner has been shown to:

Rapidly kill pre-existing fleas
- In one study, 100% of fleas were killed within 6 hours6
- In another study, 99.8% of fleas were killed within 8 hours7

Prevent new flea infestations for at least one month
- ≥99.8% persistent efficacy against new infestations8,9

Prevent viable egg production
- 98.8% reduction in viable flea egg count within 24 hours of administration and 100% reduction within 12 hours from Day 7 throughout the month (following weekly flea infestations)8

By preventing viable egg production
NEXGARD SPECTRA interrupts the flea life cycle
Efficacy demonstrated in ‘real world’ conditions

Field studies were conducted in Australia, Europe and Japan with dogs living in ‘real world’ conditions – where there is ongoing potential exposure to newly emerged fleas from environments contaminated with flea eggs, larvae and pupae:

■ In all of the studies NEXGARD SPECTRA demonstrated excellent control with ≥99% efficacy against fleas (Ctenocephalides spp.) at Day 30 post-treatment vs Day 0 flea counts²,10,11

■ The Australian field study was conducted over 3 months and no fleas were seen on any of the dogs after Day 30²

NEXGARD SPECTRA – Efficacy against adult fleas over 3 months²

100% EFFICACY against fleas at Day 60 and Day 90 vs Day 0 flea count

≥99% EFFICACY against fleas at Day 30 vs Day 0 flea count

Controls flea allergy dermatitis

The effect of NEXGARD SPECTRA against fleas makes it a great addition to the treatment strategy for flea allergy dermatitis:

■ Rapid speed of kill

■ Persistent month long efficacy

■ Kills fleas before they lay eggs limiting future flea exposure in the dog’s environment
For proven performance against ticks

Every year thousands of Australian dogs are at risk of tick paralysis

- The Eastern Paralysis tick is endemic along the eastern seaboard of Australia
- It has also been found on animals outside traditional paralysis tick areas such as metropolitan Melbourne and the ACT\(^2\)
- Toxin secreted by adult female ticks causes potentially fatal paralysis in dogs and cats and can affect other species, including humans\(^3\)
- Toxin secretion occurs after the tick has been attached and feeding on a host for 3–5 days\(^4\)
- Efficacy at 72 hours is the benchmark for regulatory assessment of acaricides against this Australian parasite

NexGard Spectra exceeds the 72 hour regulatory requirement and has been shown to kill \(\geq 97.7\%\) ticks within 48 hours for a full month\(^5\)
Two Australian studies demonstrated efficacy against *I. holocyclus*\(^\text{15}\):

- \(\geq 95\%\) efficacy within 24 hours against pre-existing tick infestations
- \(\geq 97.7\%\) efficacy within 48 hours for a full month following weekly infestation with 50 paralysis ticks

**NEXGARD SPECTRA – Efficacy post treatment**

\(\geq 97.7\%\) Efficacy at 48 hour counts throughout both studies

Efficacy against Brown Dog and Bush ticks

Afoxolaner is a highly effective acaricide against other Australian ticks:

- \(\geq 97.9\%\) efficacy at 48 hours for a full month against Brown Dog ticks (*Rhipicephalus sanguineus*)\(^9\)
- 100% efficacy at 48 hours for a full month against Bush ticks (*Haemaphysalis longicornis*)\(^16\)
Heartworm (Dirofilaria immitis) is endemic to mainland Australia.

- In a recent survey of Australian veterinarians, 1 in 7 had diagnosed at least one case of heartworm disease in the previous three years.\(^\text{17}\)
- Monthly administration of NEXGARD SPECTRA was 100% effective in preventing heartworm disease in both controlled clinical trials and field studies.\(^\text{18,19}\)

**NEXGARD SPECTRA – Heartworm preventative efficacy\(^\text{1}\)**

100% EFFICACY
The most recent prevalence survey of gastrointestinal parasites in dogs (n=1400) from across Australia found hookworm to be the most prevalent gastrointestinal worm species in the canine pet population. Of those testing positive for hookworm, 71% were positive for a single infection with *A. caninum*.

- Milbemycin oxime in NEXGARD SPECTRA protects dogs from hookworm, roundworm and whipworm.
- Worldwide laboratory and real-life field studies have demonstrated that NEXGARD SPECTRA effectively treats and controls these worms.

**NEXGARD SPECTRA** – Efficacy against hookworm, roundworm and whipworm*.

- **T. LEONINA** (roundworm) 96.8% efficacy
- **A. CANINUM** (hookworm) 97% efficacy
- **T. CANIS** (roundworm) 98.9% efficacy
- **T. VULPIS** (whipworm) 99.6% efficacy

*Pooled data.
two main tapeworms that infest dogs in australia are the hydatid tapeworm (Echinococcus granulosus) and the flea tapeworm (Dipylidium caninum)

- the risk of hydatid tapeworm infestation is greater in sheep farming areas where dogs may have access to animal carcasses
- in a recent survey of rural dogs, the prevalence of E. granulosus was only 3.2\%\textsuperscript{23}
- in a 2008 survey from urban and rural dogs, none of 1400 faecal samples tested positive for E. granulosus\textsuperscript{20}
- the flea tapeworm is transmitted to dogs through the ingestion of adult fleas carrying D. caninum larvae
- in a 2008 survey, the overall prevalence of D. caninum was very low (0.1\%)\textsuperscript{20}

An effective flea control program reduces the likelihood of flea tapeworm infection
Through effective flea control NEXGARD SPECTRA has been shown to be 100\% effective at preventing infection with D. caninum\textsuperscript{24}
If tapeworm is a concern, the broad spectrum wormer PARAGARD\textsuperscript{\textregistered} may be included in a treatment program with NEXGARD SPECTRA

*NEXGARD SPECTRA does not have a label claim against tapeworm. If tapeworm is a concern in your geographical location consider adding Paragard to your dog’s parasite prevention protocol.
NEXGARD SPECTRA CAN BE USED WITH CONFIDENCE BY PET OWNERS

■ Safety demonstrated in puppies from 8 weeks of age and from 2 kg weight

■ Well tolerated when administered to puppies at 1, 3 and 5 x the maximum exposure dose at 3 x one-month intervals followed by 3 x two-week dose intervals

■ Tested in dogs with the MDR1 gene mutation – well tolerated at up to 5 x maximum exposure dose

TESTED IN FIELD STUDIES IN OVER 800 DOGS ACROSS 100 BREEDS

AGE: From 2 months to 16 years old
WEIGHT: Ranging from 2 kg to 59 kg
BREEDS: Over 100 different pure breeds and a wide range of cross breeds including breeds commonly affected by the MDR1 gene mutation e.g. Collies, Shepherd breeds

Administered to dogs receiving a wide variety of concurrent medications including anaesthetics, analgesics, avermectins, anthelmintics, antibiotics, cardiac medications, diuretics, NSAIDS, sedatives, steroids, topical parasiticides and vaccines

During formulation, dose selection, dose confirmation and field studies, monthly administration of NEXGARD SPECTRA was well tolerated and no serious adverse events were attributed to treatment

Studies with NEXGARD SPECTRA have not been conducted in pregnant and lactating female dogs.
Suitable for most dogs

- Suitable for puppies from 8 weeks of age
- For dogs weighing 2 kg or more
- Well tolerated in various breeds of dogs, including breeds commonly affected by the MDR1 gene mutation\(^{26}\)
- Excellent safety profile

Easy for owners

- Easy to dose tasty chew
- Easy to remember monthly treatment
- Can be given with or without food
- Unaffected by bathing, swimming or shampooing
- No need to separate treated dogs from other pets in the household

### COMPREHENSIVE WEIGHT RANGE

<table>
<thead>
<tr>
<th>Weight range (kg)</th>
<th>2 – 3.5 kg</th>
<th>3.6 – 7.5 kg</th>
<th>7.6 – 15 kg</th>
<th>15.1 – 30 kg</th>
<th>30.1 – 60 kg</th>
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<tbody>
<tr>
<td>1 month protection pack (Retail packs in vet only. Samples market-wide)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>3 month protection pack</td>
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<td>✔</td>
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<td>✔</td>
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<tr>
<td>6 month protection pack</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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