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Vectra  
3D

Vectra 3D® contains the active ingredients dinotefuran, permethrin and an Insect Growth Regulator (IGR) pyriproxyfen.

## Key Notes

- ✓ Vectra 3D offers the efficacy, safety, and ease of application you and your clients seek.
- ✓ The repellent properties of permethrin in Vectra 3D prevent ticks from attaching and feeding, thus preventing disease transmission.
- ✓ The IGR in Vectra 3D controls all stages of the flea: adults, eggs, larvae and pupae.
- ✓ Vectra 3D provides 6-way protection against fleas (all life stages), ticks, mosquitoes, biting and sucking lice, mites and sand flies.

## Urban Legend #15

***The larger fluid volume of Vectra 3D® topical ectoparasiticide is an inconvenience and a disadvantage.***

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### Reality

A larger volume spot-on has many benefits over older marketed ectoparasiticides. With spot-on protection these attributes contribute to the safety and improved efficacy of the product. Some veterinarians and owners, accustomed to the lower fluid volumes in older topical ectoparasiticides, perceive that having a somewhat larger volume to apply to pets is undesirable. This perception is a result of the natural human tendency to view anything “different” as undesirable and consider change itself as a negative. In reality, a larger volume, more dilute solution of proper dose of parasiticide actually has definite advantages over concentrated, small volume products. Vectra 3D® is the first topical parasiticide treatment containing three active ingredients (dinotefuran, pyriproxyfen and permethrin) giving it its broad spectrum of protection including all life stages of fleas, ticks, mosquitoes, biting and sucking lice, sand flies and mites. The unique blend of carriers enables the solution to effectively translocate and adhere to the skin.

The advantages to having more solution allows the product to be administered over a larger area of the dog’s body along the neck and back. Since the product and its actives will start the process of dispersion from a larger, more diffuse surface area, full translocation occurs more rapidly to all of the untreated areas of the pet. Combined with the relatively small molecular structure of dinotefuran, this larger volume provides a recipe for speed of parasite kill, a very important attribute of a parasiticide for control of vector borne diseases.

A larger volume of solution means the actives in the product are more dilute than they would be in a smaller volume. More dilute actives means that a very efficacious dose is administered and will have less opportunity for causing contact irritation on the skin surface than the older more concentrated parasiticides. And, for larger dogs, application to multiple spots speeds up the process of translocation. In other words, by spreading out the formulation, you are decreasing the concentration of the active ingredient over the body versus any particular area of the skin. This decrease reduces the threshold for nerve stimulation thus further reducing the risk of adverse reactions. Couple this with the Vectra 3D® patented applicator's long neck and rounded edge which eliminates skin irritation and abrasions, and you have a combination for improved safety compliance and efficacy.

The addition of "carrier" molecules to the active anti-parasite components of the product increases volume while providing many of the uniquely beneficial features of Vectra 3D. These molecules speed translocation of the actives over the dog's body surface and increase their adherence without the need for absorption into the lipid and skin cell layers, thus providing reliable water resistance and increased longevity of parasiticide and repellent effects. More importantly, since Vectra 3D is not absorbed and stays on the skin surface, it kills on contact; therefore, the parasite does not have to bite to receive a lethal dose of active ingredient.

Finally, a larger volume of solution means that small errors in administration, such as accidental application to the haircoat or spillage if the pet moves during application, will not markedly decrease the amount of actives that are still available to translocate over the pet's body surface and provide protection against parasitic vectors of disease.

In all these ways, greater volume is an integral part of the Vectra product line, providing one of the substantial benefits of these remarkable products. In this case, change is good.

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