

# An investigating of the economic soundness of wintering without ectoparasite prevention for dogs

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## Background

- Many dog owners do not use ectoparasite prevention as is recommended to give year-round protection. Compliance is best in warmer months.
- Flea and tick activity is lower in the winter, but no research has yet been done to determine if it is low enough that prevention is not needed.
- The goal of this research project would be to determine if going without prevention over winter is a financially sound decision.
- This information could be used to educate clients and help them decide

## Methods and Analysis

- Two groups of dogs will be tested, one with prevention and one without, November-February in Bell County, Ky.
- Every month, both groups will be examined for flea and tick infestation and tested for flea-and tick-borne diseases.
- Rates and types of infections between the two groups will be compared with statistical analysis to determine if the experimental group was at significantly higher risk.
- The average cost of treatment for any complications will be compared between the two groups and compared to the cost of prevention to determine which method saves money

## Expected Results and Conclusion

It is expected that using prevention over winter will prove to be a more sound decision, both financially and for the health of the dog.

Having the evidence from this study could be used to educate clients and improve compliance either way, either by proving that year-round prevention is really needed or by helping them target their use to when it is most needed.

Further research applying these ideas to other areas with different climate and weather would help determine where else, if anywhere, these hypotheses apply should also be considered. This would help veterinarians to educate and convince a broader number of dog owners about how to effectively protect their pets.

## Acknowledgments

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Fig 2: Ctenocephalides felis from File:Ctenocephalides felis ZSM.jpg - Wikimedia Commons

## Hypothesis

H0: There will be no significant difference in cost between keeping a dog on ectoparasite prevention over Winter and not keeping a dog on ectoparasite prevention over Winter.

H1: It will be financially sound to use prevention for a dog over Winter, as the average cost of treatment is likely to exceed the cost of prevention.

H2: It will be financially sound to not use prevention for a dog over Winter, as the average cost of treatment is not likely to exceed the cost of prevention.



Fig 1: Blacklegged Tick, *Ixodes Scapularis*, from <https://phil.cdc.gov/Details.aspx?pid=1669>.

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