

LITERATURE SUMMARY: Potential value of garlic flavoring against tick infestation in cattle

Feeding of garlic to cattle as a natural means of ectoparasite repellency has increased in popularity recently in response to new data showing that oral garlic supplementation can reduce fly cover and defensive behaviors in pastured cattle¹. This attention has led to the rediscovery of other data in cattle showing the potential of garlic to repel ticks.

Ticks

Addition of garlic powder free choice mineral supplement for range cattle has been shown to reduce tick infestation² (figure 1). As time progressed tick counts increased from less than 5 per animal at the start of the study to over 25 per animal on the negative control at day 98. Garlic powder kept tick infestation on par with the anti-parasitic treatment through day 70. Even after that tick levels in the garlic supplemented group were half that of the negative control.

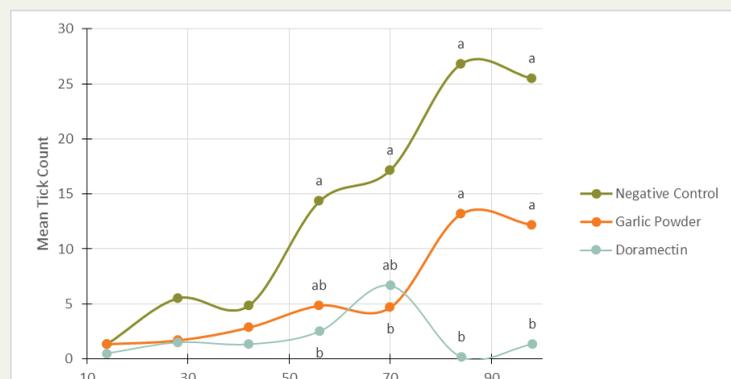


Figure 1. Mean tick count of cattle fed an antiparasitic drug (Doramectin), or garlic powder (9 g per 220 g of free-choice mineral supplement) as compared with no intervention (Negative Control)². Data points without a common superscript at the same day differ (Tukey; $P < 0.05$).

Reduced ticks (figure 2), and improved sensory scores (data not shown) for cheese have been reported in dairy cows receiving 100 to

200 g/c/d of minced garlic³. Garlic powder (at either dose) maintained a steady tick infestation from the pre-trial period, which was an improvement as compared with the almost doubling of tick infestation in the negative control.

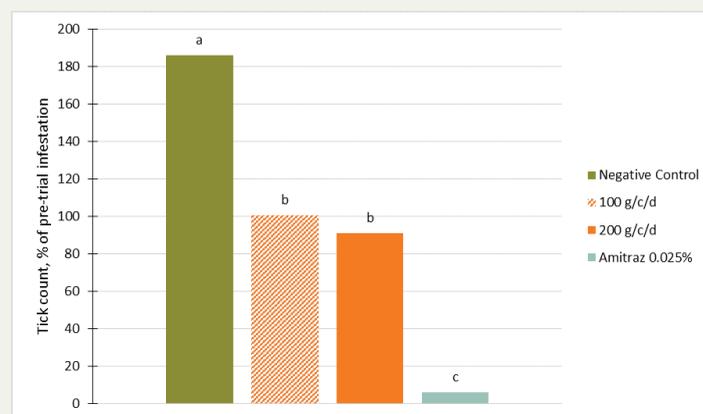


Figure 2. Tick infestation over a 14 day period, percent of pre-treatment tick count. Cows fed 100 or 200 g/cow/d of minced garlic, or an insecticide (Amitraz 0.025%) were compared with untreated cows (negative control). Within day, points with different letters indicate a significant difference ($P < 0.05$) by Duncan's test. Adapted from Massariol et al. (2009).

Summary

In conclusion, published trials suggest that the dominant aromatic compounds in garlic may also deter other ectoparasites like ticks from preying on your cattle. If you'd like to explore the potential of Feedbuds® garlic flavors in your cattle operation, please contact your local QualiTech representative for more information.

References

1. Durunna, O. and H. Lardner (2020). Sustainable Agriculture Research 10(1).
2. Castro Alvarenga, L., et al. (2004). Ciênc. agrotec., Lavras 28(4):906.
3. Massariol, P. B., et al. (2009). Rev. Bras. Pl. Med. 11(1):37.