

Integrative Tick Management: Bait Box Placement

The Journal of Medical Entomology has published a recent article regarding utilization of integrated tick management (ITM). Researchers studied the effects of “configuration of bait box deployment” on the reduction of tick burden in a suburban/rural landscape. Researchers additionally investigated bait consumption and white-footed mouse (*P. leucopus*) abundances as a measure of the usage and effectiveness of bait boxes.



Bait boxes were placed in both grid and perimeter layouts on nine properties within each of six neighborhoods throughout Guilford, Connecticut. These properties consisted of a matrix of forested, residential, preserved open space and some agricultural lands. The investigators then analyzed multiple factors as potential predictors for reduction in tick burdens using a “backward stepwise selection procedure.”

Results of the study show that the perimeter layout was the more effective placement strategy for bait boxes. They also found that white-footed mouse abundance was a significant predictor of reduction of tick burden, but that bait consumption was not. The findings of this study support the recommended perimeter placement layout for bait boxes, and provides insight into effective utilization in areas of high white-footed mouse abundance.

Vector control professionals, homeowners and other stakeholders can utilize the results of this study to make informed decisions regarding bait box placement on properties to exert the greatest impact on blacklegged tick reduction and their associated pathogens using ITM strategies.

Access to the full text article can be found here

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