

Study 25k

Laboratory Summary

A series of 3 laboratory trials was conducted using adult bed bugs from 6 different strains which ranged from susceptible to highly resistant to the pyrethroid deltamethrin as listed below:

KRU	moderate
Washington	moderate
Jersey City	high
S. Carolina	susceptible
Indianapolis	susceptible
Harlan	susceptible

Trial 1

Adult bed bugs on filter paper were directly sprayed with Temprid® SC Insecticide. After one hour, the bed bugs were removed and mortality measured over 24 hours. S. Carolina, KRU, and Washington bed bug strains were used. Mortality was 100% for all bed bug strains within 48 hours.

Trial 2

Adult bed bugs from the KRU, Washington and Indianapolis strains were exposed to fresh residues of Temprid applied to fabric or plywood for four hours then they were removed and mortality measured. New adults from the same strains were exposed to the aged treated substrates at months 1, 2, and 3 and mortality recorded. All mortality was high for all strains by day 7 with variation attributed to the resistance level of each particular strain.

Trial 3

Adult bed bugs from the Jersey City and Harlan strains were confined for 7 days to pieces of vinyl, carpet, fabric, or plywood previously treated with Temprid and mortality recorded for 7 days. Results revealed that some of the substrates treated impacted mortality in the resistant bed bug strain.