Study 12c

Field Summary

The ActiveGuard® Mattress Liner, is an Active Liner impregnated with 1.64% permethrin on a polyester fabric, and is labeled to kill bed bugs for up to 2 years. The Active Liner is typically installed inverted on the mattress and/or box spring once the bed bugs are largely cleared from the structure. Any missed bed bugs or nymphs from newly hatched eggs are killed thus preventing the start of new infestations.

A demonstration of the value of *Active*Guard when used a part of a bed bug IPM (Integrated Pest Management) control program was completed by M&M Environmental, a PMP (Pest Management Professional) firm located in the New York city area which had 5 years of experience in the use of *Active*Guard in their bed bug control program. The demonstration occurred in 2015 with five residential senior housing buildings where 210 units were selected. The units were divided into three groups of 70 units, each of which had no current bed bug activity based upon trap catches from Bed Bug Defender bed bug interceptors. Group 1 were units with previous bed bug history, Group 2 were units with no bed bug history and group 3 were units without previous bed bug history also but served as the untreated control.

ActiveGuard was installed on all the mattresses (1 to 3 per unit) in Groups 1 and 2 but none in Group 3, the control group. The Bed Bug Defenders were emptied and left on all of the beds and furniture under the legs of which they were installed. All units were inspected and the bed bug catch in the Defenders recorded after the 5 to 8 months after the start of the demonstration. Based upon the trap catch per unit, the unit was classed as: category A with dead bed bugs only, category B with at least 1 live bed bug though all units contained at least 80% dead bed bugs), and category C with no bed bugs at all.

Group 1 (history and Liners) had 28% bed bug incidents compare to either Group 2 (no history but Liners, 20%) or Group 3 (no history and no Liners, 19%).

The number of units with live bed bugs was only 4% (total of 140 units of Group 1 and Group 2 combines compared to the 70 units in the Control Group 3 where 10% had live bed bugs.

The installation of *Active*Guard Mattress Liners as the final step in an IPM program reduced the number of units with live bed bugs compared to the control units. *Active*Guard was an important component in the bed bug control demonstration in the prevention and development of bed bug infestation for these senior residential units.