

## Study 43b

### Laboratory and Field Summary

#### Laboratory

Filter paper was treated with CimeXa™ Insecticide Dust and challenged with adult male bed bugs. Two of the strains of bed bugs were highly resistant to pyrethroids while the third strain was moderately resistant. Results indicated that all of the bed bugs were killed within 48 hours of exposure on all three strains.

Another laboratory test challenged commercial carpeting treated with CimeXa dust after the moderately resistant bed bugs were briefly exposed to the treated carpet. Approximately 98% of the bed bugs were killed within 24 hours of exposure to the dust.

#### Field

Ten bed bug infested apartments were treated solely with CimeXa. Six were treated with CimeXa dust while four were treated with CimeXa dust mixed in water at the ¼ rate and sprayed in the apartment units. Approximately 350 bed bugs per apartment was the measured infestation rate. The dust was applied via dry paint brush to avoid drift while the aqueous version of CimeXa was applied with a compressed air sprayer. For the dust treated units. An 82% reduction in bed bug population was noted one week after treatment and 98% at the final evaluation.

For the dust/water mix application, only a 35% reduction was noted after 1-2 weeks with visible white residue left behind. These units were retreated with CimeXa dust only. CimeXa should only be applied as a dust in the control of bed bugs.