

Study 1c

Laboratory Summary

A laboratory study was conducted using adult bed bugs from 10 different strains which ranged from susceptible to highly resistant to the pyrethroid deltamethrin. Transport[®] GHP Insecticide was applied at the labeled rate to filter paper and adults bed bugs from the various strains were exposed to the dry residue continuously for 1, 2, 3, 7, and 14 days. Transport GHP exposure resulted in 100% mortality for 4 strains but it took all of 14 days to obtain 90 to 100% control of the other 6 strains. This is important in that Transport GHP is a mixture of two insecticide each of which from a different class: the pyrethroid bifenthrin and the neonicotinoid acetamiprid.

A comparison between Transport GHP (a wettable powder formulation) and a liquid micro emulsion formulation was also completed in the laboratory against three moderate to highly resistant bed bug strains. The adult bed bugs again were continuously exposed to dry residues on filter paper for 1, 2, 3, 7, and 14 days with mortality recorded along the way. Transport GHP provided near 100% control for all three strains while the micro emulsion version resulted in approximately 20% control for two strains and 80% for the third stain. Clearly the wettable powder formulation performed much better than the micro emulsion formulation.