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The Effect of Different Isolates of Beauveria Bassiana on the Field Populations of Lygus Hesperus

Lygus is a damaging pest of many crops in the Western United States. Lygus species cause major problems to crops including cotton, soybean, and corn. However, in 2002 Snodgrass

Ld Scott discover that Lygus Hesperus has increased and smarting to become a major problem in today's society. California and MS both use Alfalfa plots and treated one of the three isolates of B. bassiana. The three isolates of B. bassiana use in this experiment were CA(WTPB2), MS(TPB3), GHA , or the chemical pesticide Warrior T. After the field was sprayed with different chemicals of B. bassiana, over half of the adults were collected from the field 3 days after with B. bassiana infected. About 30% of the insects collected out treated and non-treated with Warrior T were also infected, but the problem was hard to identify the difference in percentage infection occurred among the treatments. The research has yield no major evidence that one isolate used in the experiment had a real impact over the other in the eradication of the Lygus hesperus. The research done in both California and Mississippi using the various

isolates showed the *Lygus hesperus* adult stayed unchanged in the control plots. However, there was a noticeable change that occurred after 7 days among the treated *Lygus Hesperus* that received the TPB3 versus Warrior T. The initial treatment of the *Lygus* was very minimal until 10 - 14 days after the treatment, which showed a delayed reaction to the chemical. Warrior T treatment yielded a greater impact than Silwet L-77. Bassiana had little impact on the nymph population than the control group. After treatment, an increase movement of insects became apparent and having received inoculation the death of the insects occurs in about three days after. Additional research is needed in order to find the best isolate that will yield the greatest percentage of elimination of the *Lygus hesperus* which continues to invade agriculture community and bring much devastation.