Hen behavior as a tool for detecting pest infestations and improving hen welfare

Bed bugs are a major threat to laying hen welfare and are becoming increasingly problematic as the U.S. egg industry transitions to cage free production. Control and eradication of bed bugs in cage free systems is difficult because bed bugs spread more easily in these systems and are resistant to many types of insecticides. The objectives of this research are to 1) develop animal-based indicators of bed bug infestation as the infestation progresses in a new flock, 2) identify behavioral differences between flocks at different production stages that have established bed bug infestations, 3) devise and test integrated pest management (IPM) strategies, and 4) determine the effects of bed bug infestations on hen welfare and productivity. Results will provide behavioral indicators of hen welfare that can be used to identify bed bug infestations and IPM techniques that can be implemented to control and eradicate bed bugs.

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