



Bed Bug Management in Poultry Houses

Overview

Bed bugs (*Cimex lectularius*) are blood-feeding ectoparasites that can infest poultry facilities, especially breeder houses and cage-free layer systems. Infestations cause economic losses through reduced egg production, skin lesions, and bird stress. Effective management requires knowledge of bed bug biology, cultural practices, and targeted insecticide use within an integrated pest management (IPM) program.

Biology

Adult bed bugs are flattened, wingless, reddish-brown insects about the size of an apple seed; nymphs are smaller and lighter. Each female can deposit 50–350 eggs within their life span in cracks and crevices. Eggs hatch in 4–12 days nymphs undergo five molts about a week apart before reaching adulthood. The life cycle from egg to adult takes 24–128 days and can finish in roughly 30 days at 80°F in poultry houses. Bed bugs feed nocturnally for 5–15 minutes then return to harborage in nest boxes, in between slats, underneath dropped curtains, around vents and fans and in any crack and crevice. They survive weeks to months without a host, persisting between flocks and can use a variety of hosts such as chickens, rodents, and humans for a blood meal. Signs of infestation include dark fecal spots on eggs and structures, cast skins, and a unique, musty odor in heavy infestations.

Cultural Practices

- Scouting for and prevention of bed bug colonization form the foundation of control. Install bed bug traps such as the new BugScents™ Sentry Pro from Liphatech out of the reach of birds and implement insecticide interventions at the first sign of bed bugs.
- Enforce biosecurity: change clothing and footwear after working in infested areas.
- Between flocks, heat treatment maintained above 120°F for several hours kill all life stages, including eggs.

Insecticide Solutions

- Chemical control is frequently needed once populations are established.
- Treat all houses simultaneously and apply perimeter residual sprays with Ternate™ SC to limit migration.
- Apply sprays thoroughly to cracks, crevices, nest boxes, slats, roosts, and support posts.
- A combination of neurotoxins (e.g. Antapex™ WSG, Tirade™ CS, Fraxel™ PSP) and IGRs (i.e. Nixlo IGR Concentrate, Durant™ 2L IGR) should be applied to all surfaces inside and outside of structures for bed bug management.
- After surface spray products are applied, fog the interior of the structure with Stengard™ to flush bed bugs out of cracks and crevices and provide a quick knockdown and kill.
- Fraxel™ PSP Insecticide, Nixlo™ IGR Concentrate, and Stengard™ are labeled for use with birds present.
- Dusts such as Tirade™ 1% Dust Insecticide can supplement residual sprays.
- Because eggs usually survive the first application, retreat after 10–14 days.
- Rotate chemical classes and follow all label directions.

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