

Perimeter Insect Control Inside the Poultry House



Country of GP owner: Spain

BroilerNet Challenge: Reducing the risk of Salmonella

The beetle *Alphitobius diaperinus* can act as a reservoir for various diseases and, at the same time, cause damage to poultry house facilities. This insect is a known reservoir of *Salmonella*. Several studies have found beetles positive for *Salmonella* both during the production cycle and in the period between flocks and have demonstrated that it acts as a reservoir. Therefore, the importance of controlling and eliminating this pest is clear. During the production cycle, adult beetles live in the litter, feeding on it and on any feed residues that may fall. To develop their biological cycle optimally, they require temperatures above 30 °C. Thus, when the birds are removed from the house and the litter begins to cool, *Alphitobius* beetles start to emerge, seeking shelter along the walls, where they remain until optimal conditions in the litter are re-established. The proposed good practice, which is applicable to any type of production system and house size, aims to eliminate beetles by creating a clean strip, free of litter, 25–50 cm wide along the inner perimeter of the house, which is treated with insecticide. Insecticides may belong to the pyrethroid family (e.g. cypermethrin or deltamethrin), neonicotinoids (e.g. acetamiprid), or spinosyns (spinosad). As the litter cools, beetles will move out and, on their way to the walls, must pass through the treated strip. It is essential to create this strip as soon as possible after bird removal to ensure that the maximum number of insects come into contact with the insecticide before reaching the walls. This practice is particularly relevant in older houses, where walls may have irregularities, cracks, and small holes that provide shelter for insects. Once the litter has cooled—after approximately 3–6 hours depending on ambient temperature—routine cleaning and disinfection operations can begin.

