

# Picking and Mutual Feather Picking in Poultry: Differential Diagnosis

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Picking and mutual feather picking is certainly one of the main behaviour related problems in chickens and hens. Creating wounds and stress, it induces dramatic economic losses and is a major welfare question in chicken farms. The observations and published data regarding this topic show that several causes can induce these symptoms. Pruritus, redirected aggression, stress (overpopulation, temperature, lack of water, ammoniac, etcetera), and competition have been considered as involved and depending on the identified cause, the treatment is very different. Our aim is to clarify the diagnosis and propose a standardized protocol.

## Material and Method

Seven farms with picking problems (6 with laying hens (almost 10000 hens/farm) and 1 farm with growing chickens (2 buildings containing 15000 chickens each) were been studied. In each farm we compared a building containing chickens with picking problems and another building in the same farm, containing chickens without the problem. This building is our reference group in each poultry farm. Our protocol is a complete physical examination of 30 randomized chickens to identify possible external parasites and/or other dermatologic problems. Blood samples are obtained from these birds to measure the rate heterophiles/ lymphocytes (H/L rate), corticosterone and thyroxine concentration. Using some other chickens (same number) we performed a freezing test as described in the literature. A complete check-list of the environmental parameters (temperature, humidity, food, water, etcetera) was obtained.

## Results

This study shows the high frequency of parasitic diseases in the groups with picking problems. *Dermanyssus gallinae* and *Ornithonyssus sylviarum* appear to be one of the main causes of picking. In addition, the pruritus because of the mite