

## Relationship between Causes of Carcass Condemnation and Other Welfare Indicators Collected in Three Poultry Slaughterhouses

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**Abstract :** The objective of this study was to evaluate the welfare of reared broilers using scoring systems at the slaughterhouse. The welfare of broilers from 70 different flocks was assessed in three different slaughterhouses, regarding 373043 animals, although not in equal proportions in each slaughterhouse due to the difference in the amount of flocks slaughtered per day because of different company size. Twenty-one flocks were evaluated in slaughterhouse A (30%), thirty in slaughterhouse B (42,9%) and nineteen in slaughterhouse C (27,1%). The parameters evaluated were feather cleanness, foot pad dermatitis, hock burn, breast burn and causes of carcass condemnation. Feather cleanness was scored into three classes: 0=clean; 1=moderately dirty and 2=dirty feathers. Foot pad dermatitis, hock burn and breast ulcer were graded in three classes: 0=no lesions, 1=moderate lesions and 2=severe lesions. Causes of carcass condemnation were divided into emaciation, ascites, colour alteration and febrile state, arthritis, aerosaculitis, dermatitis, peritonitis, myositis, cellulitis, extensive trauma and technopathies as mechanical trauma, insufficient bleeding and deficient plucking. Broilers evaluated had a body weight ranging between 0,909kg and 2,588kg (median 1,522kg) and age between 25 days and 45 days (median 33 days). Rejection rate of flocks ranged between 0,1% and 10,48% (median 1,4029%) and footpad dermatitis total score between 2 and 197, resulting in 20 flocks presenting moderate lesions and 15 flocks with severe lesions. Moderate hock burn was associated with severe foot pad dermatitis and with breast burn. The associations between these lesions suggest that the development of contact dermatitis is caused by a common cause, the prolonged contact with litter of poor quality. In conclusion, contact dermatitis lesions, mostly foot pad dermatitis, feather hygiene conditions and rejection rate were the main restrictions of good welfare and considered important indicators for the follow-up on the farm conditions.

**Keywords :** broiler, dermatitis, welfare, slaughterhouse

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