

B-107 Study on carcass quality of broilers

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Since the quality of broiler carcass is important to guarantee the quality of the final product, factors which are affecting carcass quality, such as transportation, live weight, waiting time before slaughter, chilling condition and bacterial counts were assessed in this study.

Data was collected from the chicken processing plant of "Ceylon Industries Ltd". Data on presence of damage on carcass such as skin damage, bone damage, bruises, scabs, blisters, pin feathers, inedible organs was collected. Weight gain or losses were evaluated during chilling, freezing and thawing. Weight of different cuts and trimming losses were also estimated. Further assessment was done to count bacterial cells at different processing steps.

Presence of scabs, blisters and pin feathers on broiler carcasses was 8.34%, 7.281% and 7.211% respectively. Presence of inedible organs was low, except for lungs and trachea. The bacterial counts of different processing steps were relatively low. While chilling reduces bacterial counts at a significant rate (from 2.4×10^6 to 7.6×10^5).

There was no significant effect of transport distance and transport time on carcass damage, but waiting time before slaughtering had a significant effect on bruises and bone damage. The damages increased with increased waiting time and there was a positive relationship between carcass damage and live weight. There was no relationship between transport distance and moisture uptake by the carcass during chilling. Although moisture uptake during chilling was not related to carcass weight, weight loss during freezing was slightly decreased with increasing carcass weight. With increasing waiting time before freezing, water accumulation in packs increased significantly.

Breast percentage and back percentage were significantly increased with increasing carcass weight of birds. However, thigh percentage and wing percentage were not affected by carcass weight and trimming loss was high in small carcasses.