

The Effects of Regular Handling and Different Handling Types During Transportation on Pre-Slaughter Stress in Broiler Production

The aim of this study was to investigate the effects of regular handling applications during rearing period and different handling types during transportation on stress in broiler production. This study was carried out in The Poultry Research Unit of Faculty of Veterinary Medicine, University of Adnan Menderes. For that purpose, 160 one day old broiler chicks (Ross-308) that provided from a private hatchery were used.

The results of the study revealed that blood corticosterone concentrations in broilers in regular handling and nonhandling groups were found as 2,74 ng/ml and 2,96 ng/ml, respectively. It was determined that regular handling applications during rearing period had decreased the level of stress in broilers but this did not reach statistically significance. Additionally, there were any differences between male and female birds both in handling and transportation treatments in broilers. Dealing with the types of handling used in preslaughter period, blood corticosterone concentrations in upright, single inverted and multiple inverted groups were determined as 2,17 ng/ml, 2,47 ng/ml and 3,13 ng/ml, respectively that the difference between handling types was also found significant ($P < 0,05$). It was determined that handling types used in transportation have no significant effects on blood corticosterone concentration in treatment group that had been exposed to handling application. It was found that broilers which had been transported with multiple inverted manners have high corticosterone levels than normal and single inverted ones. On the other hand, it was determined that handling applications in both male and female broilers in all handling types had no statistically significant effects on blood corticosterone concentrations. According to the results, the carcass yields calculated for handling and non-handling groups were 74,40 % and 76,33 %, respectively. In different words, it was understood that handling applications during rearing period in broilers have significant effects on carcass yield ($P < 0,001$).

Key Words: Broiler, Corticosterone, Handling, Stress, Transportation